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PREFACE



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THE

PREFACE.

AS a Work of this kind can want no Apology for its Publication, or any Thing to be ſaid in Recommendation of the Subject; ſo what I have to ſay concering it, muſt be of the Deſign, and the Manner of its Execution. As to the former, it will ſufficiently appear by the Title-Page, that this Work was calculated to reduce the vaſt tedious Studies of the Arts and Sciences Philological, to moderate Bounds, and within the reach of common Peoples Pockets. Nothing has more obſtructed the Progreſs of the Sciences, than the Bulkineſs and Price of Books. Large Treatiſes are deſign'd to enable a Man to form a critical Notion of every Part of the Subject; but how very few Gentlemen do we find who will give themſelves that trouble? Moſt Readers think they ſucceed very well, if they can acquire but a *general Idea* of Things; nor is it for Men of Buſineſs to aim at much more, be their Fortunes what they will: And Gentlemen of Leiſure and Fortune, if they want Genius, of Conſequence care not much for Books at all, much leſs are they anxious about the Size or Sufficiency of them. It is evident, therefore, that a general and conciſe Deſcription or Account of any Art or Science (eſpecially the *Literary*) is beſt adapted to anſwer the Ends and Views of the greateſt

Part of Readers. And I wiſh even Epitomies themſelves were not thought ſo tedious as they too often are by ſuch Perſons who yet claim to be deem'd polite, and to have a Taſte for the *Belles Lettres*.

As to what concerns the Execution of this Work, I have only this to ſay, That from a great Number of the beſt Books on each Subject, I took Pains to collect the beſt Materials for forming ſuch an Epitome of each Art or Science, as might give the Reader a general and juſt Idea thereof, without the Trouble and Expence of larger Volumes. Nor are the Treatiſes in this Book rude Draughts or Sketches, but ſtricty Methodical, and Syſtems form'd by technical Rules, and therefore very proper for Youth to form their Notions by.

With Regard to this ſecond Edition, it will be ſufficient to ſay, that I have made no Addition or Alteration, but of typographic Errata, or ſome few Faults which eſcaped in the firſt Impreſſion. As there can be none ſo unreaſonably greedy of Knowledge, as to think they have not enough in this Book for their Money; ſo it was unneceſſary to add more; nor could it be done conſiſtent with common Juſtice to my Subſcribers, who enabled me to publiſh it at firſt, and took off ſo great a Number of the Impreſſion; and therefore merited a Right to all the Advantages the Book ſhould ever have. I therefore ſend it abroad once more, as it came out of my Hands, and truſt its Fortune to its Merits, deſiring no more than an Acceptance of this, or any other Book of mine, proportional thereunto.

4. AP 64

Chicheſter, March 18, 1740.

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Of

Of THEOLOGY, *or the* EXISTENCE *of a* DEITY; *and the* FIRST *PRINCIPLES of NATURAL RELIGION.*

MAN only, of all other Beings, is able ſo to view and conſider Things which appear all around him, that by duly comparing one with another, and a juſt Method of Arguing, or Reaſoning from Effects to their Cauſes, he can at laſt eaſily arrive to, or make a Diſcovery of a *Prime* or *Firſt Cauſe*, the *Great Author and Maker of all Things*, and which, by us, is called *GOD*. *Man only rational and able to diſcover the Being of a God.*

AND as the *whole Frame and Order of Things, which we behold*, is what we call *Nature*; ſo that Act of the Mind whereby we conſider and compare Things, according to their *various Natures* and *Relations*, and deduce from thence the *Exiſtence of a God*, is what we call *Reaſon*. And the Arguments and Motives which are afforded us from the View and Proſpect of Nature in her ſeveral Parts, and whereby we are induced and inclined to give our Aſſent to the Doctrine of the Being of a God, is what we call the *Light of Nature*. *Nature.* *Reaſon.* *Light of Nature.*

AND e'er we reckon ſix, eight, or ten Years from our Births, we are able, in ſome Degree, to exert this noble Faculty of Reaſon, and make ſome Progreſs in the divine Diſcovery aforeſaid, *viz.* of *God's Exiſtence* and moral Qualities: And this Faculty of Reaſon, as we grow in Years, becomes more ſtrong and perfect, and works on the pure and untainted Mind with native Force, and ſuch powerful and clear Proof, as we can neither deny nor withſtand. And thus, as Saint *Paul* has obſerved, what is neceſſary to be known of God, (or *Reaſon capable of diſcovering a God.* Rom. i. 19, 20.

(or indeed can be known of him by us) is manifeſt in the Works of Creation; even his eternal Power and Godhead is clearly ſeen, being underſtood by the Things which are made. So that all Perſons, capable of Reaſon, are without Excuſe, who do not readily acknowledge the Being and Glory of God.

The Voice of Nature univerſal, Pſal. xix. 1, 2, 3.

NOR is there any Part of Nature within our View, (nor any Place where there is not ſuch a View of Nature) which doth not loudly call upon us to receive and confeſs this great and divine Truth. The Heavens declare the Glory of God; and the rich Furniture thereof, the Sun, the Moon, and Stars, ſhew themſelves to be his Handy-work: Day unto Day uttereth Speech, and Night unto Night ſheweth Knowledge. There is no Nation on the Face of the whole Earth, where their Voice is not heard; for it is gone thro' all the Earth, and their Words to the End of the World.

and loudly proclaims a God.

The various Sorts of created Beings.

FROM hence we are naturally led to ſurvey and make a proper Diſtinction and Arrangement of the Works of Nature: We ſee all Things conſiſt of Matter, which is for the moſt Part obvious to our Senſes; and we are moſt agreeably ſurpriſed with a wonderful and infinite Variety of Forms, Conditions, and Qualities of natural Subſtances. Some Parts of Matter we obſerve to be without Motion, Senſe, or Life, as *Stones* and *Earth*: Others we ſee are endued with a Power of growing and extending themſelves into ſpecial Forms and Sizes, as *Herbs* and *Trees*, which therefore have innate Motion, and may, in ſome Senſe, be ſaid to live or have Life, tho' in the loweſt Degree. The next Claſs of Beings which preſent themſelves, is in a Degree much ſuperior to the foregoing, the Subjects of which are all endued with native Motion, Life in the moſt perfect Degree, and the Quality of Senſation; that is, they are capable of *Seeing*, *Hearing*, *Taſting*, *Smelling*, and *Feeling* of all thoſe Objects which come within the Reach of any of theſe *five Senſes*. Theſe Creatures are therefore called *Animals*, becauſe they have the *Faculty of Life*, or are endowed with a *living Soul*. And of all Animals, *Man* is the Head and Ruler, on account of the far more perfect and excellent Faculties and Powers of his Mind, and eſpecially that of Reaſon, by which he is diſtinguiſhed from, and ſet above and over all the other Creation, as *King* and *Lord of all*; and from hence he is called a *Rational Animal*; not but that Reaſon, in various inferior

Firſt Claſs.

Second Claſs.

Third Claſs, Animals.

Fourth Claſs, Mankind, the moſt perfect of all others.

ferior Degrees, may be very juſtly allow'd to other Animals, who, on divers Occaſions, give very convincing Proofs thereof.

The principal Argument proving the Being of a God.

BUT Man alone is capable of uſing his Reaſon to the nobleſt Purpoſes, to wit, the finding out the Being and Perfections of God, his Providence, and the Certainty of a future State after Death. For he can thus reaſon or argue: Every Thing that is, or doth exiſt, receives its Being either from itſelf, or ſome other Principle or Cauſe; but nothing can be the Cauſe of itſelf, for that implies, that while it is not, it is capable of acting, or producing its own Being, which is evidently abſurd; therefore it muſt receive its Being from without itſelf, or from ſome other Cauſe different from itſelf; and this firſt Cauſe we name *God*. And this Reaſoning holds good of all the various Kinds of Beings yet obſerved, and even of Man himſelf, the chief of all: For nothing is more certain, than that the Power of giving or retaining Life, either in himſelf, or any other Creature, is not in Man, and conſequently in no other Being but God himſelf.

The ſecond Argument proving a God from voluntary Animal Motion.

BUT more particularly, the Being of a God is evident from the bare Conſideration of the Properties of Matter: For Matter, 'tis plain, is of itſelf not capable of Motion or Reſt, but is entirely liſtleſs and indifferent to both. But ſince all the animal Creation is endow'd with the Power to move or reſt at pleaſure, 'tis evident this Faculty is not from Matter itſelf, of which alone all Things conſiſt; therefore it muſt be from ſome other Principle or Cauſe, *viz.* from God.

The third Argument, from involuntary Motion of Animals and other Things.

AGAIN; if that Motion and Reſt in Animals, which is at their Will, be not of themſelves, much leſs can that Motion which is perform'd in Animals, without their Will, (I may ſay alſo without their Knowledge) be firſt from themſelves; as the Motion of the Heart, Lungs, Blood, and other Fluids of the Body, which all move, during the Period of Animal Life, from one inceſſant Cauſe; which, ſince it is not ſubject to the *Will* and *Power* of the Animal, muſt neceſſarily be from the general and the firſt Cauſe of all Things, God.

From the Motions of the heavenly Bodies, abſolutely conſider'd.

THIS is moſt certainly evident from the abſolute and conſtant Motions of the heavenly Bodies, which ever keep turning round one common Center in Orbits nearly circular. For ſince theſe Bodies, I mean the Planets, are only huge Maſſes of mere Matter, they are not of them-

themſelves capable of any Motion at all; therefore they were firſt ſet in Motion by ſome firſt Mover, which is able to communicate that Power to Matter; which is God only, as before proved.

Alſo from their conſtant circular Motions.

BUT this is ſtill more obvious from the Manner of their Motions, which is circular; for when Matter is put into Motion, it naturally proceeds in a direct or right Courſe; that is, ſtrait forwards, and not in a crooked or circular Courſe or Orb, as the Planets all do. Now the Air is not of that Thickneſs or Denſity in thoſe Regions, as to ſtop the rapid Courſe of ſuch great Bodies, and turn them from a direct to a curve or circular Motion; but ſince it cannot proceed from the Air, it muſt be the Reſult of ſome Cauſe in thoſe Bodies themſelves, and that is Gravity, whereby they tend to their common Center of Motion from a right Courſe, yet ſo adjuſted, with reſpect to the Force of the firſt or direct Motion, that together they form the circular Courſe; and ſo neither fly off in Right Lines to infinite Diſtances, nor fall at once to the Center, and there loſe all Motion. Now all this moſt admirable Power and Contrivance plainly points to that great Author, of whom the *heavens are the works of his fingers, and the moon and ſtars are of his ordaining.*

Pſal. viii. 3.

Arguments to prove a God, taken from Final Cauſes.

FROM the Conſideration of *Final Cauſes* flow a thouſand Arguments to prove the Exiſtence of God. By *Final Cauſes*, I mean the Ends for which Things are evidently made, or intended to anſwer. Thus when we conſider the Light was created to render Things viſible, the Eye made on purpoſe to behold them; when we conſider the Air as a Means to convey Sounds and Scents, and the Ear and the Noſe made and contrived on purpoſe to hear and ſmell the ſame: That in the Body there are Nerves which convey the Ideas received by thoſe outward Organs of Senſe to the Brain, which is the Seat of the Mind in Animals, to be there made uſe of for the Service, and at the Diſcretion of the Creature, in the ſeveral Occaſions of Life: I ſay, when we conſider ſuch a wonderful Furniture of Means appointed ſo evidently to anſwer ſuch a Series of proper and neceſſary Ends, it forces our Aſſent to the Doctrine of a Deity, who alone can be ſuppoſed capable of performing ſuch wonderful Things.

From a general Survey of

AGAIN; from a due and nice Examination of all the larger Parts of the Creation, ſuch as the Globe

of

of Earth on which we live, the great Variety of its Produce in Animals, Plants, and Minerals; the exact Contrivance of Animal Bodies to ſuit them for the Medium in which they live; the Man, and larger Beaſts for Land, the Fiſhes for ſwimming in Water, the Fowls for flying in Air, the infinite Species of Creatures for the dark Abodes within the Body of the Earth; the rich and beautiful Variety of Herbs for the Paſturage of the Beaſts, and Service of Man; with all the mineral Tribes in the Bowels of the Earth; the great and uſeful Variety of Mountains, Valleys, Rivers, Springs, *&c.* with which its Surface is diverſified: As they all jointly ſerve the Uſes and Neceſſities of Mankind, ſo they call moſt emphatically upon us to acknowledge and adore the divine Author for diſplaying and expending ſo much of his boundleſs Power and Providence in our Behalf. In like manner, the wondrous Orb of Air ſurrounding the Earth, ſerving to the Generation of Winds, Rain, Luſtre of Daylight, *&c.* abſolutely neceſſary to the State of Man and Beaſts: Alſo the whole Frame and Structure of the Heavens; the Sun which rules by Day, and the Moon which rules the Night, with the Stars alſo, will unavoidably induce us to confeſs, that 'tis *GOD who hath laid the foundations of the earth, and that the heavens are the work of his hands.*

the Earth and the Heavens.

ANOTHER, and not the leaſt Argument for the Being of a God, is taken from the manifeſt Conſent of all Nations with whom Reaſon and Morality hath appear'd in any Degree, and whoſe Barbarity hath not brought them to a level with mere Brutes. For whereas that which reſults from the Will, Humour, or mere Opinion of Men, is never the ſame among all People, as this Notion of God's Exiſtence is; that is always mutable; this always and every where the ſame; all the World contend about Matters of Opinion, but all jointly agree to, and endeavour to eſtabliſh this Point. With reſpect to Articles of Faith amongſt *Jews*, *Mahometans*, and *Pagans*, as well as amongſt *Chriſtians*, ſcarce any one hath remained unconteſted but this; this ſtands firſt and the ſame in all the Creeds of all Nations: And it hath been often ſeen, that tho' a very great Body of People may maintain an erroneous Doctrine, yet it never fails of being ſooner or later detected and confuted to the Satisfaction of all Parties; a Fate which this ſacred Doctrine only hath never yet been ſubject to. Much more

The univerſal Conſent of all Nations, an Argument of God's Exiſtence.

This univerſal Conſent, whence.

may be ſaid on this Head, but let this ſuffice here. Now from whence ſhould this univerſal Perſuaſion concerning a Deity proceed? May we not anſwer, from the cogent ſacred Oracles of Nature? Is not every Part of Nature vocal on this Occaſion? and doth not the moſt contemptible Animal thunder in our Ears the tremendous Name of its Maker? It is impoſſible then, but that all ſhould know, and univerſally confeſs, that it is *GOD who hath made the heavens and the earth, and all things therein; that he hath given to all life, breath, and all things; and that he hath made of one blood all nations of men to dwell on the face of the earth; and therefore that in him we live, move, and have our being.*

Acts xvii. 24, 25, 26, &c.

Atheiſts, an Objection of no Force againſt the Doctrine of God's Exiſtence.

IT is an Objection of no Force, to ſay there have been ſeveral particular Perſons who have denied this ſacred Truth, the Being of a God: For (1.) it may be anſwer'd, that theſe Perſons, take them all together in all Ages, have been exceeding few; and their impious Opinion therefore ought not to be thought of any Weight againſt the avowed Judgment and Conſent of all Nations. (2.) It is poſſible this was not really the Sentiment of their Minds, and Language of their Conſcience, tho' they might, for ſeveral Reaſons, dare in Words to profeſs they believed no God; nothing being more common, in other Affairs of Religion, than for ſome Men to profeſs what they do not really and ſeriouſly believe in their Minds. (3.) Several who have been once ſo unhappy as to fall into this dreadful Suppoſition, have afterwards, upon Conviction, renounced it with Abhorrence, and wonder'd at their Stupidity. (4.) There are ſome People who make no Scruple of denying the Evidence of all the Senſes of the Body, when they contradict their declared Tenets, and theſe by whole Nations together; no Wonder then that here and there one ſingle Perſon ſhould refuſe to hearken to the internal Senſes of the Mind: For all Nations believe that Bread is not Fleſh; that Animals have Senſe of Pain and Pleaſure; that ſome Things are certain and true; as well as that they all believe a God; and yet they have all been denied, as well as this. (5.) If any have been really of this Opinion, they muſt neceſſarily have been devoid of Reaſon; for right Reaſon dictates the contrary: So that 'tis a juſt Remark of the Pſalmiſt, That 'tis the FOOL *who hath ſaid in his Heart, There is no God.* The Atheiſt then is a Fool; not ſo much for want of natural Senſe, as

The Atheiſt is a Fool.

as natural Reaſon: He is ſo in the ſame manner as are State Criminals; *viz.* he is a Malecontent, a Traitor, a Rebel againſt his ſovereign Prince and Maker.

The abſolute and moral Perfections and Attributes of God diſcoverable by the Light of Nature.

FROM the foregoing Arguments, and many others, 'tis evidently prov'd *there is a God*; and not only that, but we may from thence, and by the ſame Method of Reaſoning, plainly diſcover and infer moſt of his Attributes and Perfections, which render him, to us his Creatures, an *awful* and *adorable Object*. As firſt, that God is a neceſſarily Self-exiſtent and Eternal Being; that he is an Unchangeable and Independent Being; that he is but One; that he is a Being moſt Simple, Uniform, Indiviſible, and Incorruptible; that he is Omnipotent, or All-powerful; Omniſcient, or infinite in Knowledge; that he is a Pure Spirit, without Body, Parts, or Paſſions; that he acts freely, as he pleaſes, without Neceſſity; and, laſtly, that he muſt neceſſarily be a Being of infinite Goodneſs, Mercy, Juſtice, and Truth, and all other moral Perfections; ſuch as become the ſupreme Ruler and Judge of the World.

The Providence of God, or his Government of the World, and all Things therein, plainly inferr'd from the Light of Nature.

THE Providence of God is moſt rationally inferr'd from his being proved the Author or Maker of the World, and all Things therein. For not only Man, as being endow'd with Underſtanding and Wiſdom, but even Birds, Beaſts, Inſects, and all Creatures having Life and Senſe, we conſtantly obſerve to have a ſpecial Care, Regard, and Tenderneſs of their Offſprings; and as it is a Part of natural Goodneſs, can we, on any account, ſuppoſe the ſame Carefulneſs and providential Regard to the Works of his Hands, wanting in that great Being whom we grant to be poſſeſs'd of infinite Goodneſs, Mercy, and Benevolence? But this is directly proved from ſeveral Obſervations on the Works of Nature, as the Motions of the heavenly Bodies, contrary to the proper Laws of Nature, *&c.* to anſwer a general End. Wherefore we muſt conclude, that the ſame God who created all Things, and upholds and preſerves them by his continual Concourſe, does alſo, by his all-wiſe Providence, conſtantly govern and direct the Iſſues and Events of Things, takes care of this lower World, and of all, even the ſmalleſt Things therein; diſpoſes Things in a regular Order and Succeſſion in every Age from the Beginning of the World to its final Period; but inſpects, with a more particular Regard, the moral Actions of Men.

A Future State of Rewards and Puniſhments proved. Firſt, from Man's being an accountable Creature; and the Nature of Virtue and Vice.

A FUTURE State of Rewards and Puniſhments may be concluded alſo by the Strength and Light of Reaſon. For, (1.) The Nature of Man is ſuch, that he acts freely, of choice, and unconſtrained; and hath a Law imprinted in his Mind, which conſtantly directs him to do that, in every Caſe, which is fit and requiſite from the Nature of Things. If he acts agreeable to this Law of right Reaſon, it is reputed *Virtue*; if contrary to it, it is called *Vice*: But Virtue merits Reward, and Vice Puniſhment, from the Nature thereof: Yet theſe Rewards and Puniſhments, 'tis plain, are not equally diſtributed in this Life; and ſince they are from God, to whom alone Man can be accountable for his moral Actions, and he is infinitely juſt, it follows there muſt be another and future State, in which Virtue and Vice muſt receive a perfect and equitable Diſtribution of Rewards and Puniſhments, proportionable to the ſeveral Degrees of Merit and Demerit. (2.) From the natural Inclination and Deſire of Immortality, and an unavoidable Concern for what is to come hereafter, implanted in all Men, we may very probably conclude a Future State. (3.) The Dignity and Excellency of Man's Nature plainly ſhew him deſign'd and intended for a better and more worthy State of Life, than the beſt he can enjoy in this World. (4.) The natural Self-conſciouſneſs and Judgment which all Men ſecretly make of their own Actions in their own Minds, is by all allowed to be no ſmall Proof of a future State of Account. (5.) It hath been the confeſs'd Judgment and Opinion of almoſt all the Heathen World, and has obtained as univerſally, both as to Time and Place, nearly as the Notion of a God itſelf; and therefore muſt be the Reſult of Reaſon, and deem'd a Certainty.

Secondly, from Man's natural Deſire of Immortality.

Thirdly, from the Dignity of Man's Nature.

Fourthly, from Conſcience.

Fifthly, from the Conſent of Nations.

Piety the immediate Conſequence of our Belief of God, his Providence, and a Future State.

HAVING eſtabliſh'd in the Mind a firm and rational Belief of a Deity, his Providence and Government of the World, and a future State of Life, there muſt neceſſarily enſue the *Practice of Piety*, or an effectual Senſe of the Obligations we are under to love, fear, ſerve, praiſe, pray to, and adore the ſacred Name, and glorious Majeſty of God. From hence alſo we are induced to truſt in, to rely and depend upon him; to exerciſe Patience and Hope in Times of Affliction and Adverſity, and to keep ourſelves humble in Times even of the greateſt Proſperity and Felicity; to have always a due and ſolemn Regard to the Rectitude of all our Actions; and

to

to be always in a proper Degree of Reſignation both of ourſelves and Fortunes, to the ſovereign Diſpoſe and Pleaſure of God, who tho' he be the Moſt High, and has Dominion over all, yet he is righteous in all his Ways, and his tender Mercies are over all his Works.

Of ETHICS, *or* MORAL VIRTUES.

Definition of ETHICS.

ETHICS is that *Science*, or *practical Diſcipline* which teacheth and explains the Way and Means of attaining *human Felicity*, or the greateſt Happineſs our Natures are capable of in this Life. This Science is alſo called *Morality*, or *Moral Philoſophy*.

Why call'd Morality.

IT is called *Morality*, becauſe it directs the *Manners* of Men aright, and determines them to the Ways of Virtue, and from the deceitful and dangerous Paths of Vice.

The Object of, and Prerequiſites to this Science.

SINCE the chiefeſt Happineſs of Life conſiſts in the *Tranquillity* and *Pleaſure* of the Mind, and this can proceed from nothing but the Conſciouſneſs of a Series or Life of Actions perform'd according to the Rule of Reaſon, Virtue, and Honeſty; it follows, that in order to have a juſt Notion of this moſt uſeful Science, and treat of it in a proper Manner, we muſt firſt conſider the Nature of *human Action*, and the *Law* by which it is regulated.

Human Actions what, and how ſo.

Human Action, or Agency, is that which ariſeth from the proper and diſtinguiſhing Principles of Man, *viz.* the *Will* and *Underſtanding*. It muſt flow from the *Will*, that it may be *free*; and from the *Underſtanding*, that it may be *rational*; and being thus both *free* and *rational*, it muſt be *human*.

Moral Action what.

Moral Action is ſuch as renders the Agent or Doer *good* or *bad*, or worthy of *Reward* or *Puniſhment*.

How an Action becomes good or bad.

THAT an Action be *good* or *bad*, it is requir'd there be a *certain Agreement* or *Diſagreement* of the *Act* and *Object* to which it is referr'd; that ſo *Reaſon* may determine whether the *Action*, with regard to the *Object*, may be *aptly*, *meetly*, and *prudently* exerted, or not. And if there be any Action wherein no ſuch Regard can be

be had to the Object, that Action is said to be *indifferent*. An Action also may become *good* or *bad*, from the *End* or *Design* thereof, and several other *Circumstances* attending it, as *Time*, *Place*, *Person*, *Order*, *Age*, *Condition*, *Cause*, &c.

Actions either wholly good, or wholly evil, except indifferent ones.

In order to denominate an Action *good*, it is requisite that the *Object*, *End*, and *Circumstances*, are together *all good*, at least none of them *bad*. Hence it follows, that no Action can be *partly good*, and *partly bad*; and that if either the *Object*, *End*, or *Circumstances* be singly bad, the Action will be *evil*, and that wholly so. Lastly, it follows that there is no *Participation* of *Good* and *Evil*; and that *Evil* is only the *Privation* of *Good*, or *Want* of *due Conformity* between the *Act* and its *Object*.

The same exemplified.

For Example, in doing *Alms*, the Object is a poor necessitous Person; the End is to abate or prevent Misery arising from Want of Necessaries; the *Circumstances* are the Person's Merit, Quality, the Time, Place, Number, *&c.* Now if from all these Things duly consider'd, Reason approves our giving an Alms, the Action is good, and then becomes our Duty: But if the Object be *not poor* and *need it*, or our End be the *Praise of Men*; or, lastly, if he be an *idle*, *worthless*, or *undeserving* Person; if a Vagrant, to whom the Laws have forbid the Act; or the Number of Objects so great, that in relieving them you must reduce yourself and Family: I say, in any one of those Cases, even so laudable an Act as Almsgiving, would, in the Judgment of Reason, be censur'd as an Evil or Folly that ought not to be done.

The Rule of human Actions is twofold; viz. (1) *Law.* (2) *Conscience.*

The *Rule* of human Actions or Manners, is a Measure by which we make a Judgment of Things of the *same Kind*, from their *Convenience* therewith, or *Disagreement* thereto. This is twofold, (1.) *External*, which is called the Law; and, (2.) *Internal*, which we call the *practical Judgment* of the *intellectual Mind*, or Conscience.

Conscience defined.

Conscience is the *internal Judgment* or *Testimony* of Man's own Mind, which he makes or passes upon Actions done or to be done, concerning their *good* or *evil Quality*, and of his *own State* consequent thereupon. This *Testimony* of *Conscience* arises from the *Memory* of Facts committed or omitted; but the *Judgment* of *Conscience* proceeds from an Application of the *Law* or *Rule* to the Facts done, or to be done.

Con-

Conſcience, in bearing *Teſtimony* and paſſing *Judgment*, proceeds in a kind of *ſyllogiſtical Method* of *Reaſoning*, by Propoſitions and Conſequences. For Example: If any Man love the World, the Love of the Father is not in him; but I love the World, therefore the Love of the Father is not in me. He who does any Thing forbid by the Law ſinneth; but I have done ſomewhat forbidden by the Law, therefore I have ſinned. In theſe Syllogiſms the firſt Propoſition contains the Rule which Conſcience reſpecteth in bearing Judgment, and is called the *Light of Conſcience*. The ſecond contains the *Teſtimony* of *Conſcience*, in regard of which it produceth itſelf a *Witneſs*. The Inference is the *Judgment* of *Conſcience*.

Conſcience acts ſyllogiſtically. Examples.

The Light, Teſtimony, and Judgment of Conſcience.

THE *Rule* by which *Conſcience* judgeth of the Action, and cenſureth the Perſon, is the *Will of God*, known either by the *Light of Nature*, or from *divine Revelation*. The *Will* of *God* is plainly diſcoverable by the Light of Nature, as hath been ſhewn under the foregoing Title. This alſo is aſſerted by St. *Paul*, Rom. ii. *ver.* 14, 15. From whence 'tis plain, the whole Tenor of the *Moral Law* was imprinted on their Minds, and engraven in their Hearts; but, by divine Revelation, the dim Light of Reaſon receives a great Addition of Luſtre and Brightneſs; and the Benefit of this divine Revelation we Chriſtians only enjoy from the *ſacred Scriptures*; for therein, in a more clear and evident Manner, is the Righteouſneſs of God (or his *Will*, or *Law* of *Moral Rectitude*) revealed from one Article of Faith to another.

The Rule of Conſcience the Will of God.

Rom. i. 17.

Conſcience, in regard to the Knowledge of this Rule of moral Action, is ſaid to be *firm*, *well inform'd*, and *inſtructed*; or *weak*, *ſcrupulous*, *dubious*, and *erroneous*. An *erring Conſcience* is that which with a firm Aſſent judgeth otherwiſe than the Thing is. This *Error* of *Conſcience* ariſeth either from a want of a clear and full Conception of its Rule, or Concluſions not well or rightly deduc'd from it; the Cauſe of which is a depraved Diſpoſition, which either leads the Mind off from a *due Enquiry*, or perverts it from *judging rightly*. A *weak* and *ſcrupulous* Conſcience proceeds from the Rule's not being in every Part ſo expreſs, extenſive, and certain, as to remove all Doubts and Scruples in leſſer Matters and Circumſtances, and thereby to render it able to determine what is fit to be, or not to be done.

The ſeveral Qualities of Conſcience; as firm, weak, dubious, and erroneous.

HE

Actions againſt Conſcience, tho' erroneous, are ſinful, and why.

He that acteth againſt his *Conſcience*, tho' *erroneous*, ſinneth. For, (1.) He virtually acteth againſt the Will of God, or what he is firmly perſuaded is ſuch, which is all one; for whatever *Conſcience* dictates to be done, it pronounceth it to be done for this Reaſon, Becauſe the Will of God requires it. (2.) Becauſe he acts counter to that Reaſon, which is the neareſt and moſt immediate *Rule* of *Acting*. (3.) Becauſe the Will acting contrary to the Dictates of an erroneous *Conſcience*, is equally culpable as when it is not erroneous: Since 'tis the ſame thing, with reſpect to the Will, *to be* and *to appear*; and that we ſhould be moved with an *apparent*, equally as with a *real* Good.

Weak Conſciences ought to be indulg'd with Liberty and Freedom.

Since then the *Dictates* of *Conſcience*, even though erroneous, are ſuch *ſacred* and *indiſpenſable Ties*, 'tis evident that weak, ſcrupulous, and dubious *Conſciences* ought to be indulg'd with the *greateſt Liberty* and *Freedom*; for Force, Conſtraint, and Violence offer'd to the *Conſcience* exerciſed with *Doubts* and *Scruples*, is a very bold Attempt, and highly affronting to God; ſince in this Caſe, whilſt the *Conſcience* is uncertain whether the Act be pleaſing to God, or agreeable to the Rule of Reaſon, it is immediately driven upon it by coercive Power at all Adventures; and ſo cannot fail of producing much Diſquietude and Uneaſineſs in ſuch weak Minds, and thereby renders them *miſerable*; contrary to the Inſtitution of moral Government, which is to make Men *happy*.

A good Conſcience defin'd.

Conſcience, as it reſpects our *Conformity* or *Contrariety* to the *Laws* of *known Truth*, is ſaid to be *Good* or *Evil*. A *Good Conſcience* is that which ſincerely judgeth that to be *Good* or *Evil*, which is ſuch in the Judgment of God; and that, by virtue of ſuch a Judgment, efficaciouſly excites us to the Performance of *good Actions*, and to Abſtinence from *evil ones*. The Means of preſerving a *Good Conſcience*, are, (1.) Frequent reading and meditating in the Word of God. (2.) A frequent and impartial Examination of our own Ways and Actions. And (3.) the having always a reverential Fear of the All-wiſe and Heart-ſearching God before our Eyes, and in our Hearts. The Effects of a *Good Conſcience* every *Good Man* knows.

Means of preſerving it.

An Evil Conſcience defin'd.

An *Evil Conſcience* is that which doth not hold or avouch that Truth which it may and ought to know and acknowledge; or elſe which acteth contrary to a known Truth.

Truth. The firſt is ſaid to be a *Blind Conſcience*, as it *accuſes*, when it ſhould or ought to *excuſe*; and the contrary. The latter is a downright *Wicked Conſcience*, inaſmuch as it acts in a ſort of Defiance to God, or in direct Contradiction to his Will. How dangerous then is the Caſe of thoſe, whoſe *Intereſts* prevail with them to reject *known Truths*, or act *contrary* to them! *Blind Conſcience.* *A Wicked Conſcience.*

THE *ſecond Part* of the *Rule* of *Human Actions* is a *LAW*; this is the *external Part*. A *Law* is a *Precept* of a *ſupreme legitimate Power*, ſufficiently promulged, concerning ſome legal Matter, and obliging the Subject, under *Penalty*, to the doing or not doing thereof. Under the Name of a *Precept*, the *Prohibition* of a Thing is included, which is a *Precept* of *not doing* a Thing. *A Law defin'd*

LAW is either *Divine* or *Human*: A *Divine Law* is the *Mandate* of *God's own Majeſty*; which we are not only obliged to obey, but to eſteem *perfectly good*; as deriv'd from a *Principle infinitely good* and *righteous*. The *Divine Law* only has the Prerogative of binding the Conſcience directly and immediately; becauſe *God alone* can know the internal Motions of the Mind, and he only is able to puniſh the ſinning Conſcience. *A Divine Law, what.*

AN *Human Law* is that of *Man*, who receives the Power of giving *Laws* from God: This *Law* is mutable and prudential, and therefore ſubject to Repeal and Amendment. An *Human Law* only binds the Conſcience in a mediate Manner, and in Subſervience to the *Divine Law*. The *Body* only is the proper Subject of *Human Law*, as the *Conſcience* is of the *Divine Law*. *An Human Law, what.*

A *Divine Law* is either *Poſitive* or *Natural*. The *Poſitive Law* is ſo call'd, becauſe its Obligation ariſeth only from the *Will* or *Precept* of the *Commander*. And that is ſaid to be a *Natural Law*, whoſe Obligation ariſeth from the *Nature* of the Thing enjoin'd. Therefore, Things of the *Natural Law* are prohibited, becauſe they are *evil*; but thoſe of the *Poſitive Law* are *evil* only becauſe *prohibited*. The *Natural Law* is what of late is generally call'd the *Moral Fitneſs of Things*. *The Divine Law twofold,* viz. *Poſitive, and Natural.*

VIRTUE is an *Habit of Mind*, elective and acquired, by which we are render'd apt, and conſtantly inclin'd to *proſecute* or *avoid*, *to act* or *not to act*, as *Reaſon* and *Prudence* direct or require. *Virtue defin'd.*

VICE is an *Habit of Mind*, acquir'd, and by which we are render'd *negligent* of the *Dictates* of right *Reaſon* and *Vice defin'd.*

How differs from Sin. and *Prudence* in the Courſe of our Actions. *Vice* differs from Sin in this, that the former is an *evil Habit*, the latter an *evil Act*.

Sin, or Moral Evil defin'd. *Sin*, or *moral Evil*, is of a negative Nature, being the Want or Privation of that Rectitude which ought to be in every rational Creature, which renders him conformable to the *Rule* or *Law* of Action.

Virtue reſolved into its great Parts: which are ſix. *VIRTUE*, by ſome, is ſaid to conſiſt of the *ſix following great Parts*, viz. *Prudence*, *Sincerity*, *Fortitude*, *Temperance*, *Juſtice*, and *Charity*. And under theſe general Heads, which are call'd *Cardinal Virtues*, (as the great *Hinges* on which all Morality turns) are contain'd all the leſſer Branches and Subdiviſions of Moral Duties or Virtues.

I. *Prudence, wherein it conſiſts.* I. *PRUDENCE* is an Habit, by which a Perſon rightly judgeth, both for himſelf and others, concerning thoſe Things which are the Subjects of Action, in regard both of temporal and eternal Welfare; and ſo orders and governs the Actions of Life, that diſcerning the Good from the Evil, and the Uſeful from the Hurtful, he can direct Perſons what to follow, and what to fly, and inſtruct them how to live well and happily. Or, more briefly, it is the Knowledge of thoſe Things which are proper to be *deſired* or *avoided*.

The Offices of Prudence. The Offices then of *Prudence* are, (1.) To judge and diſcern between Things fit and not fit to be done on all Occaſions. (2.) To counſel and adviſe others who ſtand in need thereof. (3.) To preſcribe the Means for a ſafe and happy Conduct of Life.

II. *Sincerity defin'd.* II. *SINCERITY* is that Virtue of the Mind, by which the *Will* is *ſimply* and *wholly* determin'd to that which the Mind judgeth to be abſolutely beſt, and merely and alone for that Reaſon, *viz.* becauſe *it is beſt*. It determines the Will *ſimply*, without *Hypocriſy*, or Mixture of external Regards; as, to *Gain*, *Fame*, &c. And *wholly*, inaſmuch as it proſecutes, *without Exception*, all Things which by the Mind are adjudg'd beſt and moſt fitting. Since then it is in itſelf a Thing really and ſimply *the beſt*, that we follow and obey God in all Things, 'tis neceſſary that this Virtue of *Sincerity* ſhould move and excite us thereto; and that *merely* becauſe he is a *proper Object*, and it is our reaſonable and moſt advantageous Duty ſo to do. *Hypocriſy* is the *Vice oppoſite* to this *Virtue*.

III. *Fortitude defin'd.* III. *FORTITUDE* is a firm and ſteady Purpoſe and Reſolution of Mind, to undertake good and neceſ-

ſary

ſary Works and Actions, and a conſtant Perſeverance in proſecuting the ſame, maugre all the Dangers and Difficulties that may ariſe and attend it. *Fortitude* therefore conſiſts in theſe two principal Acts, *viz. to undertake*, and *to ſuſtain*. The firſt is *Reſolution*, the ſecond *Conſtancy* and *Patience*. The firſt proceeds from a natural *Magnanimity*, or *Greatneſs* of *Mind*; the latter from a *noble Bravery*, *Courage*, and *Strength* of the Mind, rather than of the Body. *Magnanimity*, *Equanimity*, and *Patience*, are always the inſeparable Concomitants of *true Fortitude*. The firſt ſecures us againſt the *Loſs* of *Honour*; the ſecond, againſt *adverſe Fortune*; the laſt enables us to bear the *Pains* of the Body, and *Indiſpoſitions* of *Mind*.

Reſolution. *Conſtancy.* *Patience.* *Magnanimity.* *Equanimity.*

IV. *TEMPERANCE* is that Virtue which ſets proper Bounds and Limits to our natural Appetites and Deſires, in Things which reſpect the preſent Life. The *Virtue* of *Temperance* is very extenſive, and comprehends the following, *viz.*

IV. *Temperance defin'd.*

HONOUR, which is an Acknowledgment and proper *Teſtification* of that *Dignity*, *Worth*, and *Excellency* we obſerve or underſtand to be in another. *Temperance* here forbids *Flattery*, which is the giving a greater Meaſure of Honour and Merit than is due to a Perſon.

Honour. *Flattery.*

MODESTY is that noble Virtue which temperates our Deſire of *Honour*; and though it produces in us a moderate Conception of our own Merits and Worth, yet it generouſly permits to receive and acknowledge ſo much Honour and Eſteem as we reaſonably deſerve. The ſame holds good with reſpect to the natural Concupiſcence of the Body. The oppoſite Vices hereto are *Pride* and *Ambition*.

Modeſty.

SOBRIETY is that excellent Virtue which temperates and reſtrains our natural Appetites, chiefly of *Meat* and *Drink*, to what is ſufficient and neceſſary; and thereby prevents in us thoſe two vicious and diſhonourable Exceſſes, *Gluttony* and *Drunkenneſs*, too well known to need defining.

Sobriety. *Gluttony and Drunkenneſs.*

CHASTITY is that moſt amiable and engaging Virtue, which inſtructs and diſpoſes the Mind to a *pure Life*, undefiled, and free from all *impure Affections*, in Word, Geſture, or Action. But in common, *Chaſtity* is taken in a more reſtrain'd Senſe, and ſignifies that Virtue, whereby we abſtain from all *luſtful Impurities* of that kind we call *Venereal*; and avoid all the Motives thereto,

Chaſtity defin'd.

thereto, in Thought and Deed. To this Virtue are
Oppoſite Vices. oppoſed the following Vices, *viz.* (1.) *Adultery*, the un-
Adultery. lawful Coveting or Cohabiting with another Man's
Fornication. Wife. (2.) *Fornication*, the illegal and carnal Cohabit-
Concubinage. ing of a Man and Woman, both *unmarried.* (3.) *Con-*
cubinage, which is a Man's keeping an unmarried Wo-
man at his Houſe, and cohabiting with her conſtantly as
Polygamy. a Wife. (4.) *Polygamy*, or *Plurality* of Wives or Huſ-
Inceſt. bands, with one Man or Woman at one time. (5.) *In-*
ceſt, which is either Adultery, Fornication, or Mar-
riage within the *prohibited Degrees* of *Kindred.* (6.)
Rape. *Rape*, or *Raviſhment.* All which are heinous and abo-
minable Crimes in the Sight of God.

V. *Juſtice* V. *JUSTICE* is that moral Virtue whereby we
defin'd. are inclin'd to perform every Thing that is *due to* our
Neighbour, ſo far as *Right* and *Equity* require. *Juſtice*
is concern'd to preſerve the *Innocent* from *Harm* and *In-*
jury; to puniſh *Offenders* according to their Demérit,
and to reward the *Virtuous and Deſerving* with what is
The Offices of their proper Right and Due. The proper Offices of
Juſtice. *Juſtice* then are, (1.) To hurt no Man in his Perſon,
Character, Fortune, or in any other wiſe whatever.
(2.) To render to every one his *juſt Due*, both in Words
Juſtice two- and Deeds. *Juſtice* is of two Kinds; (1.) *Commuta-*
fold, viz. *tive*; and (2.) *Diſtributive*. *Commutative Juſtice* con-
1. *Commuta-* ſiſts in the *Equality* of the *Thing receiv'd and return'd*;
tive, what. and is the Virtue which renders to *every one his own*, in
external Goods; and is principally occupied in Buying
and Selling, which is a *Commutation* of Things of equal
Value; and the common and ſtandard Meaſure of ſuch
kind of Commerce between Men, is what we call
Money, what. *Money*.

Injuſtice, THE Vice oppoſite to this we call *Injuſtice*; which
what. conſiſteth in *having more* or *leſs* in the *Permutation* of
Goods, than the aforeſaid *Equality* requires.

2. *Diſtribu-* *Diſtributive Juſtice* is that which conſiſts in diſtribut-
tive, what. ing *Rewards* and *Puniſhments*, according as every one
hath deſerv'd; Honours, Dignity, Benefits, and Com-
modities of all kinds, to whom they are due: As alſo
Tributes, Taxes, Cenſures, and all kinds of Burthens
and Penalties, where they are neceſſary and deſerv'd.
The firſt is call'd *Remunerative Juſtice*; and the latter
Corruption *Corrective* or *Vindictive Juſtice*. *Corruption* or *Bribery*,
and Bribery. which is the taking of Gifts to prevent or pervert the
due Diſpenſations of *Juſtice*, are the *oppoſite Vices* hereto.

VERACITY

VERACITY is that Virtue whereby we are inclin'd to *expreſs Truth*, by *Words* or *Signs equivalent* thereto, on all Occaſions. *Truth* is the Agreement of Words and Expreſſions, either (1.) With the *Thing itſelf*; or (2.) With our *Underſtanding and Judgment*. *Falſity* is the Oppoſite of the *firſt* of theſe, as a *Lye* is to the *latter*. *Simulation* is our ſeeming to expreſs the *Truth* by *Facts and Signs*, which yet in *Reality* do not expreſs it. *Fallacity* is the Vice by which we deceive another, and impoſe on him a *Falſity* under the *Pretence* or *Guiſe* of *Truth*.

Veracity defin'd.
Truth, what.
Falſity and a Lye, what.
Simulation.
Fallacity.

FIDELITY is the *Concord* or *Agreement* of *Facts* with *Promiſes and Covenants*, *expreſs'd* or *underſtood*. *Faith* is the *Belief* or *Perſuaſion* we have of this *Fidelity* in another Perſon, who is under a *Promiſe* to, or *Contract* with us; and the Act whereby we truſt to the *Fidelity* of a Perſon in ſuch a Caſe, is call'd *Confidence*. *Note*, This *Virtue* of *Fidelity* is alſo call'd (ſimply) *Faith* and *Faithfulneſs*. The oppoſite Vices hereto are, (1.) *Infidelity* and *Unfaithfulneſs*, when there is no *Intention* of *performing what is promiſed*. (2.) *Perfidy*, or *Inſincerity*, when we do not *ſufficiently*, or as much as in us lies, *endeavour to perform our Promiſes and Contracts*.

Fidelity defin'd
Faith, what.
Confidence.
Infidelity.
Perfidy.

EQUITY is a due Correction or Moderation of the *rigorous Exaction* of *Right* contain'd in the *Law*. For ſince Laws are *general Things*, and do not reach the particular State, Caſes, and Circumſtances of a Matter under all the Changes and Viciſſitudes it is obnoxious to, 'tis neceſſary they ſhould be duly temper'd by the mild and reaſonable Rules of *Equity*; which always direct us to do to others as we would they ſhould do to us. The Vice oppoſite hereto is call'd *Iniquity*.

Equity defin'd.
Iniquity.

VI. *CHARITY* is that *benign* and *kind Diſpoſition* and *Affection towards our Neighbour*, ariſing from the Structure and Temper of our Nature, whereby we are inclin'd to *procure all the Good* we can to him, and to *indemnify* him from all the Evil we are able. This noble and generous Quality in us, the *Latin* Sages thought to expreſs or comprehend the whole Nature of Man nearly, and therefore term'd it *Humanity*. And the *Greeks*, with a peculiar Propriety, call'd it *Philanthropy*, or the *Love of Mankind*. This moſt extenſive Virtue comprehends divers particular ones of very great Conſequence and Note, as follow.

Charity defin'd.
The ſame with Humanity and Philanthropy.

Benevolence defin'd.

BENEVOLENCE is that Part of *Charity*, or *Love* to our Neighbour, whereby we are inclin'd to *wiſh his Good* from our Hearts, and to *rejoice* in his obtaining it; which latter Part is call'd *Congratulation*. To this Branch of *Charity* is oppoſed (1.) *Envy*, which is an Uneaſineſs of the Mind at another's Welfare and Happineſs. (2.) *Malevolence*, or a *wiſhing Ill* to our Neighbour. (3.) *Hatred*, or that Affection which is *prone to the Evil* of our Neighbour, or whereby we abhor him. (4.) *Enmity*, which is an *inveterate Hatred* againſt our Brother, ſeeking an Occaſion to hurt or do him Harm.

Congratulation.

Envy.

Malevolence.

Hatred.

Enmity.

Affability defin'd.

AFFABILITY is a Virtue whereby we *benignly receive*, and *freely converſe* with thoſe who make their Addreſs to us.

Comity defin'd.

COMITY is a Virtue which renders us eaſy of *Acceſs*, and makes us ſhew ourſelves *ſweet*, *courteous*, and *pleaſant* in all our Actions to thoſe we converſe, or hold any Commerce withal. By this Virtue we expreſs a Pleaſure and Delight in conferring *Offices of Kindneſs* on our Brethren, and conciliate their *Love* and *Affection* to us thereby. The Vice oppoſite to *Comity* is *Moroſity*, which conſiſts in a *churliſh*, *dogged*, *ſurly*, and *contemptuous Affection* of Mind towards our Fellow Creatures.

Morosity defin'd.

Mercy defin'd.

MERCY is that Affection of *Charity*, which creates in us Pain at the Miſeries of others, and whereby we are inclin'd to ſuccour and relieve them. It ariſeth from *Sympathy*, or a *Fellow-feeling* of each other's Evils, naturally implanted in our Frame. *Mercy* is exerciſed chiefly in *Forgiveneſs*; *remitting* the *Rigour* of our *Claims* and *Dues*, where they can't eaſily be had; and in *remitting* or *moderating* the *Severity* of *Penalties* and *Puniſhments*; which latter is call'd *Clemency*. The contrary Vice to this merciful Diſpoſition, is called *Cruelty*; a Quality therefore which one would think human Nature not capable of.

Sympathy.

Clemency.

Cruelty.

Beneficence.

BENEFICENCE is that *Office* of *Charity*, which moves us to procure and advance our Neighbour's *Welfare*, by doing him all the Good in our Power; let him be in Proſperity or Adverſity, our Friend or Foe. And to this *heavenly Virtue* is oppoſed *Maleficence*, or the *deviliſh Spirit* of *doing Ill* to, or *perſecuting* of our Brethren, who are our own Fleſh and Blood.

Maleficence.

Manſuetude.

MANSUETUDE is that Virtue (near a-kin to *Clemency*) which teaches us prudently to moderate Anger, and ariſeth from a merciful Mind. *Continued Manſuetude*

tude is call'd *Longanimity*, a Virtue which long reſtrains Anger; and though we are often offended, it takes from our Minds the Deſire of Revenge. To theſe *exalted Virtues* is oppoſed an *irrational Barbarity*, which renders us capable (ſtrange to ſay!) of inflicting *Cruelties* and *Miſeries*, or ſeeing it done without Remorſe. *Longanimity.* *Barbarity.*

LIBERALITY is that Office of *Charity*, by which, from the Impreſſions of *Humanity* towards our poor and needy Neighbours, we are moved with a free and light Heart to ſupply them with Neceſſaries according to the Meaſure of our Abilities. Therefore this excellent Virtue is moſt of all conſpicuous in *giving of Alms*. And this *Eleemoſynary Diſpoſition* is ſo pleaſing to God, that he has aſſured us, that *he who giveth to the Poor, lendeth to* himſelf; and that he will abundantly repay him. When the Subjects are *Strangers* or *Foreigners*, then this Virtue is call'd *Hoſpitality*. The oppoſite Vice hereto (could a reaſonable Man think there was any?) is a *ſtingy Parſimony*, or *Cloſe-fiſtedneſs*, too often ſeen among the ſoul-leſs ungenerous Wealthy, who had rather their Money contract a *Ruſt*, than yield any kind Influence to the *Needy*. *Liberality defin'd.* Prov. xix. 17. *Hoſpitality.*

FRIENDSHIP is that more *intenſe* and *refined* Degree of *Charity*, which we call *Amity*, and is the *mutual* Return of *Love* to thoſe who *love us*; or it is the *reciprocal Benevolence* and *mutual Affection*, with which we delightfully embrace and endear ourſelves to one another. The *Ties* of *Friendſhip* are very great and ſolemn, and not to be diſſolved but by an incorrigible Degeneracy to Vice and Wickedneſs in our unhappy Friend. *Friendſhip or Amity defin'd.* *When Friendſhip only may be diſſolved.*



Of the CHRISTIAN RELIGION.

Theology, or Divinity defin'd.

THAT *Science* which treats of the *Being*, *Nature*, and *Attributes* of *GOD*, and teaches the divers *Articles* of *Faith* concerning him, together with the true *practical Method* of *worſhipping* and *ſerving of him*, is call'd by the *Greeks*, *Theology*; and by the *Latins*, *Divinity*.

Chriſtianity. Judaiſm. Mahometaniſm. Paganiſm.

THIS, with the *Chriſtians*, is call'd *Chriſtianity*; with the *Jews*, it is call'd *Judaiſm*; with the Followers of *Mahomet*, it is term'd *Mahometaniſm*; and the ſame among the *Heathens*, we call *Paganiſm*. Theſe are the four great Syſtems of Divinity now in the World, and include all others. Each of which is alſo call'd by the general Name of *Religion*.

Religion defin'd.

RELIGION is that general Habit of Reverence towards the *Divine Being*, whereby we are ſenſible of our Obligations to him, and are both enabled and inclin'd to worſhip and ſerve him, after that Manner we conceive to be moſt agreeable to his Will; that ſo we may procure his Favour and Bleſſing, and avoid his Anger and Diſpleaſure. *Religion* is twofold, *viz. Natural* and *Reveal'd*.

Is twofold, viz.

Natural Religion defined.

NATURAL RELIGION is that which Men may know, and be obliged to, by the *Light* of *Nature* and common Principles of *right Reaſon*, improv'd by Conſideration and Experience, without the *Aſſiſtance* of *Divine Revelation*. The Subſtance of *Natural Religion* is deliver'd under the two foregoing Titles.

Reveal'd Religion defined.

REVEAL'D RELIGION is what God has obliged us to perform by the Manifeſtation of his Will, upon the Conſideration of temporal or future Rewards and Puniſhments. The two great Parts of which are *Faith* and *Practice*.

Revelation.

THE Manner in which God reveals his Mind, is generally by *Viſion* or *Inſpiration*; whatever God thus ſhews to Men, and they commit to Writing, theſe Writings

tings are ſaid to be inſpired, and to contain the *reveal'd Mind* and *Will of God*; and by the *Chriſtians* theſe Writings are call'd, by way of *Excellency*, the *Scriptures*.

The Old Teſtament.

THE *Scriptures* contain two *Volumes* or *Canons* of *ſacred Writings*; the firſt is proper to the *Jews*, and is call'd the *Old Teſtament*; the other is proper to the *Chriſtians*, and is call'd the *New Teſtament*; and both together we call the *Holy Bible*, or (ſimply) the *Bible*. The *Chriſtians* acknowledge the *whole Bible*, the *Jews* only the firſt Part, for the *Word of God*.

The New Teſtament.

The Bible.

The Diviſions of the Books of the Old Teſtament into the Pentateuch.

THE *Old Teſtament* contains various particular Books, which are divided under the following general Heads, viz. (1.) The *Pentateuch*, which contains the five Books of *Moſes*, viz. *Geneſis*, *Exodus*, *Leviticus*, *Numbers*, and *Deuteronomy*. (2.) The *firſt Prophets*, containing *Joſhua*, *Judges*, the two Books of *Samuel* and *Kings*. (3.) The *latter Prophets*: The *greater*, as *Iſaiah*, *Jeremiah*, *Ezekiel*, *Daniel*: The *leſſer*, call'd the *twelve minor Prophets*, viz. *Hoſea*, *Joel*, *Amos*, *Obadiah*, *Jonah*, *Micah*, *Nahum*, *Habakkuk*, *Zephaniah*, *Haggai*, *Zechariah*, *Malachi*. (4.) The *Hagiography*, which contains the Books of *Job*, *Pſalms*, *Proverbs*, *Eccleſiaſtes*, *Canticles*; to which ſome add the Hiſtorical Books of *Ruth*, *Ezra*, *Nehemiah*, *Eſther*, with the *Lamentations* of *Jeremiah*, and the two Books of *Chronicles*, which complete the *Old Teſtament*.

Prophets former and latter.

The Hagiography.

The Books of the New Teſtament.

Evangelical.

Hiſtorical.

Epiſtolical.

Apocalyptical.

THE Books of the *New Teſtament* may be ranged under theſe following Claſſes: (1.) *Evangelical*; as the *four Goſpels*, by St. *Matthew*, *Mark*, *Luke*, and *John*, who are therefore call'd *Evangeliſts*. (2.) *Hiſtorical*; as the *Acts* of the *Apoſtles*. (3.) *Epiſtolical*; as the *Epiſtles* of St. *Paul* to the *Romans*, *Corinthians* II. *Galatians*, *Epheſians*, *Philippians*, *Coloſſians*, *Theſſalonians* II. *Timothy* II. *Titus*, *Philemon*; that to the *Hebrews*, one of *James*, two of *Peter*, three of *John*, and one of *Jude*. (4.) *Apocalyptical*; as the Book of *Revelations*. Theſe complete the Canon of the *New Teſtament*.

Scriptures Canonical and Apocryphal.

THE Books of the *Old and New Teſtament* being adjudg'd *authentic*, that is, of *Divine Authority*, and univerſally receiv'd by the *Chriſtian Church*, are therefore made the *Canon* or *Rule* of *Faith* and *Practice* in Matters of *Religion*; and ſo they are call'd *Canonical*, in oppoſition to thoſe contain'd in the *Apocrypha*, whoſe *Authentic-*

thenticneſs is doubted, and therefore they are ſaid to be *Apocryphal*. Theſe are the Books of *Tobit*, *Judith*, *Wiſdom*, *Eccleſiaſticus*, *Baruch*, two Books of *Eſdras*, two of the *Machabees*, the Additions to *Eſther* and *Daniel*, the *Prayer* of *Manaſſes*, the *Story* of the *three Children*, of *Suſannah*, and of *Bel* and the *Dragon*. Though the Papiſts hold theſe Books to be *authentic* for the moſt part, and are therefore moſt of them receiv'd into the Canon of inſpired Writings by the *Council of Trent*, &c.

Reaſons to prove they are apocryphal.

BUT that they are *apocryphal*, and not of equal Authority with the other, the *Proteſtants* prove by the following Reaſons: (1.) Becauſe they were wrote by none of the Prophets, but after *Malachi*, the laſt of the Prophets. (2.) Becauſe they were not wrote in the *Hebrew Tongue*, as were all the other Books of the *Old Teſtament*, but in the *Greek*. (3.) Becauſe the *Jews* never receiv'd them into their *Canon* of *authentic Scriptures*, yet to them were committed the Oracles of God, ſaith St. *Paul*. (4.) Becauſe they are no where cited in the *New Teſtament* by *Chriſt* or his *Apoſtles*; and therefore not acknowledg'd by them. (5.) Becauſe in them we find many Things inconſiſtent both with themſelves and with the Canonical Books: Beſides ſeveral Abſurdities, Fables, *&c.* not worth minding.

Rom. iii. 2.

The Reaſons proving the Authority of the Books of the Old Teſtament.

THAT the Books of the *Old and New Teſtaments* are *authentic*, or of *divine Authority* and *Inſpiration*, the following Arguments ſufficiently prove, *viz.* (1.) The Law of *Moſes* was deliver'd to him by God himſelf on *Mount Sinai*, attended with various Wonders and terrible Prodigies, in the open Sight of the whole Congregation of the *Iſraelites*; and therefore they could not be impoſed on in that reſpect. (2.) The ſame contains the Predictions of various future Events; all which it alſo proves to have come to paſs. (3.) The Books of the Prophets contain ſeveral Predictions, which were proved to happen accordingly, both by profane Hiſtorians, and the Writers of the *New Teſtament*. (4.) They ſay nothing but what is conſiſtent with *Moſes*'s Law. (5.) They contain nothing repugnant to the *Chriſtian Revelation* afterwards made. (6.) They ſpeak with the greateſt Reverence of God, always recommend Virtue, and inveigh againſt Vice. (7.) Their *Authority* is atteſted by the Writers of the *New Teſtament*. If then the Authority of the *latter* be good, that of the *former* muſt be ſo too.

BUT

The Authority of the Books of the New Teſtament proved by divers Arguments.

BUT the Authority of the Books of the *New Teſtament* is abundantly prov'd from theſe evident Reaſons: (1.) The Writers thereof were able to know and write the Truth; becauſe what they writ was not of Things in *antient Times*, in diſtant or foreign Countries, or done in a Corner; but in their own Days, in their own Country, in the open View of Multitudes for a long Time; and of which they themſelves were *Eye* and *Ear-Witneſſes*. (2.) As they were not, nor could be impoſed on themſelves, ſo neither can they be ſuppoſed capable of impoſing on others, for the following Reaſons: (1.) They were ſimple, plain, illiterate *Plebeians*, *Tradeſmen*, and *Mechanics* for the moſt part; and therefore could not pretend to Art and Craft enough to impoſe upon the whole World. (2.) If they were as cunning as you pleaſe, 'tis certain their Relation, if fictitious, is very ill contrived, and could never have ſucceeded as an *Impoſture*. For (3.) there were enough living in and about the ſame Country and Regions to confute them to their Faces, had their Story been falſe, and not well-known Matter of Fact. (4.) But 'tis plain from many Paſſages, (as where they ſpeak of their own Failings; their Meanneſs of Parentage, Perſon, and Profeſſion; their Contention with each other, *&c.*) they could have no Intention of Fallacy, or Impoſture; becauſe it would then have been their Intereſt to have conceal'd ſuch Particulars. (5.) The Religion which they promulge, prohibits *all Lying*, under the Penalty of eternal Condemnation; wherefore if *Impoſtors*, they were ſelf-condemned. (6.) 'Tis evident, ſince the whole Tenour of the *New Teſtament* turns upon the *Praiſe* of *Virtue* and *Purity* of *Life*, and a manifeſt Abhorrence and Prohibition of all kind of Vice and Wickedneſs, that nothing can be more abſurd, than to imagine it proceeded from the Devil, and not from God, from whom alone ſuch an excellent Doctrine could be expected. (7.) There is no Poſſibility of ſeeing which way thoſe Authors could make any Advantage of ſuch an Impoſture to themſelves, or others; and to ſuppoſe they would take the Pains to invent and ſpread one for none at all, is abſurd and ſilly. (8.) On the contrary, they ſuffer'd many Afflictions, and Death itſelf, in Defence of their Doctrine; which muſt either argue them to be true and ſincere, or infatuated with the Love of what all the World beſides abhor.

hor. (9.) The manifeſt End and Purpoſe of the *Chriſtian Religion* is the Glory of God, and the preſent and future Happineſs of Man; which things are only worthy of God, and could therefore only come from him. (10.) The *New Teſtament* contains nothing contrary to Reaſon, though it improves our natural Reaſon very much; and is therefore good, and worthy our Belief. (11.) The Account of our *Saviour Jeſus Chriſt*, the Burthen of the *New Teſtament*, is in all reſpects conformable to the Predictions of the *Meſſiah* in the *Old Teſtament*; and therefore the Story of him muſt be true. (12.) Laſtly, ſeveral of the principal Facts related in the *New Teſtament*, are likewiſe mention'd in the profane Hiſtories of thoſe Times, and alſo by the *Jewiſh Hiſtorians* themſelves; by which Means the Truth of them is ſufficiently confirmed.

The Scriptures are the Oracles of God.

THE ſacred Writings then of the *Old* and *New Teſtament* are the Oracles of God, or his revealed Will to Mankind. They therefore contain every thing neceſſary for us to know concerning God and ourſelves; and to enable us with Certainty to conduct our moral and religious Life in ſuch wiſe as ſhall render us acceptable to him whilſt here, and to ſecure our future and eternal Happineſs in the World to come. But to be more particular, the great Uſe of the Scriptures, or Revelation, is moſt remarkable under the following Heads, *viz.*

The great Advantage of the Scriptures, by informing us of the univerſal State of the natural World.

Firſt, By the Scriptures we learn that the Worlds were framed by the Word (or Power and Wiſdom) of God; that the Heavens and the Earth were of old, together with the Sun, the Moon, and the Stars, the Handy-work of that great God, whoſe Power and Wiſdom are infinite and unſearchable. From thence we learn the *original Formation* of *Man*, and the Production of *Beaſts*, *Fowls*, *Fiſhes*, *Trees*, and *Plants*; which the Heathen in vain ſought after. From thence only we have any *Memoirs* of the *innocent* and *lapſed State* of Man, and Manner thereof. From thence only we have an original and perfect Account of the univerſal Deluge, and the Cauſe and Manner thereof: Alſo how the World was again reſtor'd and re-peopled; with the Difference between the *Ante-diluvian* and *Poſt-diluvian* World in many Reſpects. Again, from thence we know God's *Government* of the *natural World*: and, laſtly, his Deſign to bring about its *final Cataſtrophe* by a general

a general *Conflagration*, or *Burning*: And its Renovation thereafter, or *new State* of the *Heavens* and the *Earth*. None of which *great Points* could be known from *natural Light*, by the wiſeſt *Heathen Philoſophers*.

Secondly, The Scriptures give us much clearer and more adequate Notions and Sentiments of *God*, and of his various Attributes and Perfections, than is diſcoverable by the mere Light of the moſt rectified Reaſon. They alſo acquaint us much with the *metaphyſical* Nature of *Spirits*, and *immaterial Beings*: As of *God* himſelf; of the various Orders of *Angels*, as Seraphims, Cherubims, &c. and the great Defection of ſome of them from their firſt State of celeſtial Glory, and their Condemnation to the perpetual Horrors of the infernal State. We farther learn from thence the *Intercourſe* and *Miniſtry* of *Angels* and *good Spirits*, for the carrying on the State of the moral World, as well as the natural; and conſequently of the more immediate and ſpecial Providence of God, with reſpect to Mankind.

The ſecond great Uſe of the Scriptures, in informing us of the metaphyſical Nature of God, Angels, and the ſpiritual World.

Thirdly, The *Scripture* not only contains the moſt perfect *Syſtem* of *Morality*, but refines and illuſtrates every *moral Virtue*, and recommends and enforces the Practice thereof, with the additional *Motives* of temporal and eternal Felicity. If then the Heathen could adviſe to a moral and virtuous Life, only becauſe *Virtue ſeem'd its own Reward*, with how much more Force and Power doth it ſtand recommended in *Scripture*, when, beſides its own eligible Qualities and Merits, it has all the Happineſs entail'd upon it, which the Nature of Man is capable of, or can deſire? Add to this, that though *Vice* and *Wickedneſs*, in every Degree, be in itſelf directly oppoſite to the *moral Rectitude* of *Man's Nature*, and therefore ſuch as a reaſonable Man muſt naturally abhor and deteſt; yet the more effectually to deter Man from defiling his Nature therewith, the *Scriptures* prohibit every Species thereof with the Penalty of God's *Wrath* and *Vengeance*. Thus *Virtue* is encouraged, and *Vice* prohibited, with the *Sanctions* of *Rewards* and *Puniſhments*; and that from the Authority, not of an Heathen Philoſopher, but the great Author of Nature, *God himſelf*.

The Scriptures very much illuſtrate and inforce the Practice of all moral Virtues, with the additional Force of the Sanctions of Rewards and Puniſhments.

Fourthly,

From them we learn the Repeal of the Jewiſh *Law, and the Inſtitution of Chriſtianity.*

Fourthly, From the *Scriptures* we learn the *Repeal* and *Abolition* of the *Jewiſh Law* of *Types*, *Ceremonies*, and *Carnal Ordinances*; and the *Inſtitution* of a more perfect, rational, and noble *Scheme* of *Religion* and *Devotion*, by JESUS CHRIST, the promiſed MESSIAH and SAVIOUR of the World, the SON and ANOINTED of God, who delegated and ſent him with full Power and Commiſſion ſo to do. And this is the *greateſt* and moſt *momentous Point* of *Revelation*.

The Scripture Account of Chriſt.
He is the Son of God.
His Incarnation.
Without Sin.
The true Meſſiah.

THE Doctrine of the Scriptures concerning *Jeſus Chriſt* is, (1.) That he is the *Son of God*, and was with God before the World was made. (2.) That in Time he took upon him a *Body of Fleſh*, was born of a Virgin, and was, to all appearance, an *human Perſon*. (3.) That he grew to the State of *Manhood*, and liv'd a *perfectly pure* and *righteous Life*, abſolutely free from *Sin*, or *culpable Actions*. (4.) That he declared himſelf to be the *predicted* or *promiſed Meſſiah*, or the *Anointed* of God, whom the *Jews* expected from their Writings. (5.) That he came to reveal the Mind of God his Father, and to enlighten and reform a dark and degenerate World. (6.) That he was the *great Antitype* deſign'd and prefigured by the *Jewiſh* Law of Types and Ceremonies, and that therefore in him their Law was compleated and fulfilled; and ſo, the End being anſwer'd, was not to ſubſiſt any longer. (7.) That he went about doing Acts of Charity and Beneficence; that he endeavour'd to bring Perſons off from their *Corruptions*, *Superſtitions*, and *Idolatries*, to the *ſpiritual* and *true Worſhip* of *God*. (8.) That he foretold his own *Death*, and *Reſurrection*, after three Days, from the *Grave*, and his *Aſcenſion* into *Heaven*. (9.) That he was ſent to declare to the World, that God has deſign'd, at the final Period of the World, to *raiſe* the *dead Bodies* of all, both good and bad, from their Grave, and to judge them for the Things done in this Life, and to award and aſſign every one his Doom, according to the Merit or Demerit of their Lives. (10.) That all who are alive at that great Day ſhall be changed; and that *He himſelf* was appointed by God his Father to be the awful Judge of *Quick* and *Dead*. (11.) That God had made it the indiſpen-

The Revealer of God's Will.
The great Antitype.

Taught the true Worſhip of God.

His Predictions.
Taught the Reſurrection and future Judgment.

That he himſelf was appointed Judge.

indiſpenſable Duty to every Man to believe the Doctrines which he preached; and to confirm the Truth of all his *Pretenſions*, he wrought divers *Miracles* in the open View of all Men, by the mighty Power of God his Father. (12.) That he made choice of *twelve ſelect Men*, call'd his Diſciples, and ſent them forth to preach and promulge his Doctrine, and gave them Power to work Miracles alſo in Confirmation of it. (13.) That being about the thirtieth Year of his Age, he was baptized by his *Prodromus*, or Forerunner, *John the Baptiſt*; and was in that Action recogniz'd the *Son of God*, by an *audible Voice* from Heaven; and conſecrated by the Deſcent of the *Holy Spirit* in the Shape of a Dove. (14.) But notwithſtanding the invincible Power of *heavenly Eloquence*, of *ſupernatural Works* and *Wonders*, of Purity and Perfection of Doctrine, the *Jews* would not believe him, nor receive him; but remain'd incorrigibly *obſtinate* and *inimicable*. (15.) That by conſtantly reproving their *Incredulity*, *Superſtition*, *Hypocriſy*, and other innumerable Vices, they conceiv'd an Hatred againſt him; and at laſt conſpired his Death, which they ſoon after effected; he being hanged on the *Croſs* as a *Malefactor* to his Prince and Country. (16.) That foreſeeing his Death near at hand, he inſtituted the Sacrament of his Supper, (which we call the *Euchariſt*) as a Memorial of his *Body broken*, and his *Blood ſhed* for the Remiſſion of Sins. (17.) That the *third Day* after his Burial, he aroſe from the Grave, and converſed with his Diſciples in the open Sight of all, as he had before predicted. (18.) That after his Reſurrection, he called together his Diſciples, and commanded them to go abroad into the World, and preach the Goſpel of *Repentance*, and *Remiſſion* of Sins, in his Name, to *all Perſons* in *all Nations*, beginning at *Jeruſalem*. (19.) That he enjoin'd them to baptize all whom they could prevail with to repent, and believe the Goſpel, and that in the Name of the *Father*, *Son*, and *Holy Ghoſt*, and promiſed his Preſence with them to the End of the World. (20.) That immediately after this he aſcended up into Heaven in a moſt public Manner; that he there acteth the Part of an *Advocate* and *Interceſſor* with God the Father for us *Sinners* here below, who believe in him, and

He wrought Miracles.

Chuſes his twelve Diſciples.

His Baptiſm.

Recogniz'd the Son of God.

The Jews *reject him.*

They conſpire, and put him to Death.

The Euchariſt or Lord's-Supper inſtituted.

His Reſurrection.

Preaching the Goſpel inſtituted.

Baptiſm inſtituted.

His Aſcenſion into Heaven.

Our Advocate and Interceſſor.

and endeavour to conform our Lives to his Laws; and that it is in the Power of every *individual Perſon* ſo to do, if he pleaſes.

Chriſtianity defined.

THESE Particulars concerning *Chriſt*, make the *Subſtance* or *principal Part* of *Chriſtianity*; which is nothing elſe but our profeſſing *Jeſus Chriſt* to be the *true Meſſiah* and *Son* of *God*, the Saviour of the World, and who hath given us a true *Revelation* of the Mind and Will of God; which we are obliged to regard as our *ſole Rule* in all the Affairs of *Religion*, both in *Faith* and *Practice*.

Chriſtendom.

THE *Extent* of *Chriſtianity* in the World, or all thoſe ſeveral *Kingdoms* and *Countries* where the *Chriſtian Religion* is *profeſſed* and *embraced*, are, taken together, call'd *Chriſtendom*; and this conſiſteth of many (ſome more *general*, ſome more *particular*, &c.) different *Religious Societies*, which are call'd *Churches*.

A Chriſtian Church defined.

A *CHRISTIAN CHURCH* is a *Society* or *Congregation* of *Men* and *Women*, who are call'd out from the *vicious World* by the *Preaching* of the *Goſpel*, and are *regulated* in all the Parts of their *ritual Diſcipline*, and *Articles* of *Faith*, by the *plain Rules* and *Preſcriptions* of the *New Teſtament*; and whoſe *Lives* are *correſpondent* to their *Holy Profeſſion*.

Miniſters of the Church extraordinary and ordinary.

THE *MINISTERS* of the *Chriſtian Church*, in the *primitive State* thereof, were *Extraordinary* or *Ordinary*. The *Extraordinary* were chiefly three, viz. (1.) *Apoſtles*, who were *delegated* by *Chriſt* with *Power* and *Commiſſion* to *preach* the *Goſpel*, and to *work Miracles* in *Confirmation* thereof, among all *Nations*. (2.) *Prophets*, who were not ſuch as ſimply *foretold Things*, but thoſe to whom God was pleaſed to reveal his more *ſecret Counſels* and *Deſigns*, and who related and preached the ſame to Men. A *Chriſtian Prophet* was *God's Nuncio*. (3.) *Evangeliſts*, ſuch who were *Aſſiſtants* to the *Apoſtles* in *preaching the Goſpel*; and were indued with many extraordinary Gifts of the *Holy Spirit*, as of *Languages*, *Interpretation*, &c. But ſince the *Eſtabliſhment* of *Chriſtianity* in the World, theſe *extraordinary Offices* have ceaſed.

Extraordinary, viz. *Apoſtles.* *Prophets.* *Evangeliſts.*

Ordinary Miniſters. *A Biſhop.*

THE *Ordinary Miniſters* of the *Chriſtian Church* are principally *three*. (1.) A *Biſhop* (call'd in *Greek*, *Epiſcopos*) who had the *Overſight* of the *Flock* or

Church

Church of *Chriſt*; to him pertain'd the *Preaching of the Word*, and due *Regulation* of the *Church* both in *Faith* and *Manners*. And this Rule and Preſidence of the Biſhop is call'd *Epiſcopacy*. (2.) *Presbyters*, or *Elders*, or *Prieſts*; theſe were ſuch as preach'd the Word, and *adminiſtred the Sacraments*, and perform'd all the other *ſacred Functions* of the *Miniſtry* under the *Inſpection* of the *Biſhop*. But it is a *Controverſy* whether the Scripture doth not intend the *ſame Perſon* or *Officer* by the Appellations *Biſhop* and *Presbyter*. The Power of the *Presbyter* is call'd *Presbytery*. (3.) *Deacons*; theſe were ſuch as officiated in that Part of the *Chriſtian Miniſtry* which related to the *Poor*; and their Buſineſs was to take the *Collections of Money* made in the *Church*, and to *diſtribute* it to the *Neceſſities* of the *Poor*, and other *ſacred Uſes*. And their *Office*, properly ſpeaking, is call'd the *Miniſtry*, or *Deaconſhip*. Theſe Officers are all perpetual in the *Chriſtian Church*.

His Government.

Epiſcopacy.

Presbyters, Elders, Prieſts

Their Power

Presbytery.

Deacons.

Deaconſhip.

ORTHODOXY (with Chriſtians) is that *Faith*, *Belief*, or *Opinion* which is ſtrictly *right* and *true*, and in every Part *comportant* with the *Scripture Rule* and *Declaration* of *Chriſtian Doctrine*. The *contrary* to this, *viz. wrong* or *falſe Belief*, is call'd *Heterodoxy*.

Orthodoxy and Heterodoxy, what.

HERESY ſometimes ſignifies a *Sect* or *Party* of *Chriſtians*, diſtinguiſh'd from the *general Church*, by ſome particular and peculiar *Notions*, *Opinions*, or *Practices*. Sometimes it ſignifies an *Opinion* or *Sentiment* contrary to that which is *generally receiv'd* and eſteem'd *Orthodox*. The *firſt Broacher* of ſuch Opinions, *&c.* is call'd an *Hereſiarch*; and all thoſe who embrace it, *Heretics*.

Hereſy, what.

Hereſiarch.

Heretics.

SCHISM is an *unneceſſary Separation* of one or more *Members* from the *Body* of a *Church*. And the *Perſons* thus *dividing*, or *cauſing* ſuch a *Diviſion*, are properly call'd *Schiſmatics*. But 'tis common for the *general Church* to term thoſe who diſſent or divide from it *Heretics* and *Schiſmatics*; whether they really deſerve it or not.

Schiſm, what.

Schiſmatics.

THE *general Diviſion* of the Chriſtian Church is into the *Greek* and *Roman*. The *Greek* Church is govern'd by four *Patriarchs*, viz. of *Alexandria*, of *Jeruſalem*, of *Antioch*, and of *Conſtantinople*; the latter of which calls himſelf the *Oecumenical Patriarch*, on

The great Diviſion of the Chriſtian Church, into the Greek *and* Roman.

The principal Tenets of the Greek *Church, from Sir* Paul Ricaut.

on account of his reſiding in the *Imperial City*, and his larger *Juriſdiction* than the reſt. The *Greek* Church holds, (1.) That the *Holy Ghoſt* proceeds only from the *Father*, not *from* the *Son*, but *by* the *Son*. (2.) Yet they believe him to be *God*, and the *Spirit* of the *Son*. (3.) They reject the Pope's *Supremacy*. (4.) They attend *Prayer Morning* and *Evening*, on *Sundays* and *Holidays*. (5.) They enjoin the Obſervation of divers *Faſts* and *Feaſts* in the *Church*. (6.) Alſo *Obedience* and *Honour* to their *Prieſts*. (7.) They enjoin *Confeſſion* of *Sins* four times a Year to a *regular Prieſt*. (8.) They forbid the *Laity* to read the *Books* of *Heretics*. (9.) They enjoin Prayer for *Kings*, and all *Civil* and *Eccleſiaſtical Magiſtrates*. (10.) They pray for *Souls* departed in the *Chriſtian Faith*. (11.) Alſo for the Converſion of *Schiſmatics* and *Heretics*. (12.) They forbid the *Laity* to invade the *Rights* and *Benefits* of the *Clergy*; and all kind of *Sacrilegious Acts*. (13.) They forbid marrying in *Lent*, or other *Faſts*. (14.) They prohibit the *frequenting Theatres*, or to imitate any *Gentile Cuſtoms*. (15.) They have four *Lents*; the firſt begins the 14th of *November*; the ſecond, the great *Lent* before *Eaſter*; the third begins the Week after *Pentecoſt*; and the fourth on the firſt of *Auguſt*. (16.) At theſe Times they eat nothing that has *Blood* or *Oil*, nor Milk-Meats; but *Herbs* and *Shell-fiſh*. And they will ſcarce allow *Fleſh-Broth* or an Egg at thoſe times, even to a ſick Patient, though his Life depend on it. (17.) Their *Prieſts* think it no *Sin* to be drunk on a Feſtival-day. (18.) They are as ridiculous in the Hiſtories of their *Saints* as the *Popiſh Legendaries*. (19.) They baptize Infants at eight Days old, by *Dipping* them three times under Water in the Name of the *Trinity*. (20.) They uſe a kind of *Exorciſm*, *Unction*, *Croſſing*, *Sealing*, &c. in their *Baptiſm*. (21.) They have only one *Godfather*, or *Godmother*, according to the Sex of the *Child*. (22.) They uſe a particular *Chriſm* or *Anointing* to confirm the Perſon baptiz'd with a deal of *Ceremony*. (23.) In the *Euchariſt* they ſeal their Bread in the Form of a Croſs; their Bread is leaven'd; they communicate in both Kinds, but it muſt be faſting; they receive the Bread and Wine together in a Spoon from the Hand of a *Prieſt*.

Prieſt. (24.) They acknowledge no *Tranſubſtantiation*, yet pay a ſort of Adoration to the *Sacrament*. (25.) Their *Excommunications* are made on very *frivolous Occaſions*, though full of *terrible Curſes*. (26.) They believe that departed Souls go either to *Heaven* or *Hell* immediately. (27.) They call *Marriage* one of their ſeven *Myſteries*, and abſolutely prohibit the *Marrying* a fourth Time. (28.) They worſhip *painted Images*, but curſe *graven* or *carved* ones. (29.) In the *Worſhip* of *Angels* and *Saints*, they differ little from the Papiſts. (30.) They reckon *ſeven Sacraments*, the ſame as the *Church* of *Rome*; but hold only *Baptiſm* and the *Euchariſt* neceſſary to Salvation. (31.) They reject the *Apocrypha* from being *canonical*; yet hold ſome *Traditions* of equal *Authority* with the *Scripture*. (32.) They hold *Juſtification* from *Faith* and *Works conjointly*.

The Doctrines, Tenets and Superſtitions of the Church of Rome.

THE *Roman Church* holds, (1.) That *Peter* was the Prince of the *Apoſtles*, or had the *Primacy* among them. (2.) That he came to *Rome* A. C. 42. govern'd the *Church* there as *Supreme* Biſhop twenty-four Years and a half; and was *crucified* with his Head downwards. (3.) That he was *Infallible*. (4.) That he receiv'd from *Chriſt* the *Keys* of *Heaven* and *Hell*; or Power to *anathematize*, and to *abſolve* Sins. (5.) That they have had an *uninterrupted Succeſſion* of *Biſhops* from *Peter*; whom they call Popes. (6.) That therefore the Pope is the *ſupreme* or *univerſal Biſhop* or Head of the *Chriſtian Church*. (7.) And that likewiſe he is *infallible*. (8.) That he alſo inherits the Power of *Abſolving* Perſons from Sin, or binding them with *Anathema's* or *Curſes*, as Chriſt's *Vicar*. (9.) That he is *ſupreme Head* of the *State* as well as *Church*; and can *inaugurate* and *depoſe Kings* and *Princes*, as well as *ordain* and *excommunicate Biſhops* and *Prieſts*. (10.) That he can grant *Indulgences* and *Diſpenſations* for committing Sins, and perpetrating horrid Crimes. (11.) They believe that Chriſt did really deſcend into Hell, and releas'd the Souls of former Saints there detain'd. (12.) They hold a *Purgatory*, or a Place where Souls are purified by *Fire*, before they enter into perfect *Bliſs*. (13.) They pretend alſo, that by ſaying *Maſs* the *Prieſts* can deliver Souls from the Fire of *Purgatory*. (14.) They ſuppoſe the

ſame

ſame is effected alſo by Works of *Supererogation*, and the Prayers of *Angels*. (15.) They introduced the *Sign* of the *Croſs*, *Chriſms*, *Sponſors*, *Sprinkling*, &c. in *Baptiſm*. (16.) They forbid the reading the ſacred *Scriptures* by the *Laity*. (17.) They receive the *Apocrypha* into the Canon of the authentic *Scripture*. (18.) They hold divers *Traditions* by which they pretend to ſupply the *Defects* of *Holy Scripture*. (19.) They reckon ſeven Sacraments, *viz.* *Baptiſm*, *Confirmation*, the *Lord's-Supper*, *Penance*, *Extreme Unction*, *Orders*, and *Marriage*. (20.) In the *Euchariſt*, they mix Water with the Wine, and refuſe the *Cup* to the *Laity*; and uſe *unleaven'd Bread*. (21.) They hold *Tranſubſtantiation*, or that the Bread and Wine, in the *Euchariſt*, by the Conſecration of the Prieſt, is changed into the *real Body* and *Blood* of *Chriſt*; which they firſt cauſe to be *ador'd* with *many Superſtitions*, and then very *reverently eat* him. (22.) They worſhip the *Virgin Mary*, *Angels*, *Saints*, and *Images* of all Sorts, by *Prayer*, *Offerings*, &c. (23.) They enjoin *Celibacy*, or a *ſingle State*, to their Prieſts. (24.) They are forbid alſo to read the Books of *Heretics*. (25.) They make a *Diſtinction* of *mortal* and *venial* Sins, to ſerve the Purpoſes of *Avarice* and *Ambition*. (26.) They enjoin Confeſſion of Sins in the *Ear* of a *Prieſt*, which they call *auricular Confeſſion*. (27.) They hold good Works *meritorious*, and ſell Works of *Supererogation* very often to poor *Bigots* for the *Expiation* of their *Crimes*, very *dearly*. (28.) They enjoin the keeping the Faſt of *Lent* with ſtrict *Abſtinence* from all Fleſh; yet allow the eating *Fiſh*; ſo near a-kin is their *Philoſophy* to their *Divinity*. (29.) They ſay Maſs for the *Dead* as well as the *Living*, to make the greateſt Uſe (or *Gain*) of *Godlineſs*. (29.) They ſay the Fire of *Purgatory* hath eight Degrees of *Heat*, and that of *Hell* but four. (30.) They make it a *damnable Sin* for any to doubt of their *Dictates*, though ever ſo *abſurd* and *ridiculous*. (31.) They impoſe *Penance* for Sin, but you may often exchange the *Painful* for the *Pecuniary*; ſuch is their Clemency! (32.) They profeſs *Poverty*; and have inſtituted an *Order* of *Mendicant Friars*; ſo much do they abhor *Greatneſs*, *Riches*, and *Honour!* (33.) They count all other *Religions heretical* and *damnable*. (34.) They

(34.) They pretend to have the Power of working *Miracles*. (35.) They *canonize* Perſons for *Saints*; but *Money* more than *Holineſs* is neceſſary for this. (36.) They profeſs *Chaſtity*, both *Men* and *Women*; as we have very notable *Inſtances* in the Orders of *Monks* and *Nuns*. (37.) They are very *jealous* in the *Cauſe* of *Religion*, as many have experienced by the *cruel*, *inhuman*, and *bloody Court* of *Inquiſition*. (38.) The Multitude of *Ceremonies*, *Faſts*, *Feſtivals*, *Proceſſions*, *Pilgrimages*, *Orders*, *Offices*, and *Innovations* of all kinds are too *tedious* to relate, and too *incredible* to *believe*: So that if you take *Popery* in its *native Dreſs* and *Complexion*, you muſt be pretty wiſe to know whether it is in the whole moſt like *Chriſtianity*, *Judaiſm*, *Mahometaniſm*, or *Paganiſm*.

Proteſtants whence.

THESE amazing Corruptions in the *Roman Church* occaſion'd the *Separation* of a large Body of People from her in the Days of King *Henry* the Eighth; who, from their *proteſting* againſt *Popery* and *Romiſh Decrees*, were call'd *Proteſtants*: And who, ſince their general *Reformation*, have variouſly ſubdivided from each other, and according to their different *Opinions* and *Practices* have obtain'd *peculiar Appellations*: As *Lutherans*, *Calviniſts*, who follow *Martin Luther*, and *John Calvin*, two of the firſt Reformers: *Arminians* and *Socinians*, the Followers of *James Arminus*, and of *Socinus*: The *Unitarians*, who allow but *one Perſon*, viz. of the *Father*, in the *Godhead*; and *Trinitarians*, who aſſert three Perſons in the *Godhead*, as of the *Father*, *Son*, and *Holy Ghoſt*, according to *Athanaſius*'s Creed. But the moſt *ſubſtantial Diviſions* of *Proteſtants* are the following, *viz.*

Lutherans.
Calviniſts.
Arminians.
Socinians.
Unitarians.
Trinitarians.

The Church of England.

THE *CHURCH of ENGLAND*, which is eſtabliſh'd by the *Authority* of *Parliament*; and is therefore the *National Church* in *England*, and moſt Parts of the *Britiſh King's Dominions*: The *Hierarchy* or *Government* whereof is *Archiepiſcopal*; and for the *Doctrines* and *Practical Worſhip* therein, they are *ſufficiently* known. All thoſe who do not join with this eſtabliſh'd Church, are call'd *Non-conformiſts* or *Diſſenters*. As,

Diſſenters.

Presbyterians. I. *PRESBYTERIANS*, who aſſert the Government of the Church is not by *Biſhops*, but *Preſbyters*, or *ruling Elders*; and that there is no *Order* in the *Church* of *divine Inſtitution* ſuperior to that of a *Preſbyter*; who therefore hath Power to ordain Miniſters, which is by *Faſting*, *Prayer*, and *Impoſition* of Hands. They have three Courts. (1.) The *Miniſter* of each *Pariſh*, with his *Elders*, and the *Congregation*. (2.) A *Court* of *Preſbytery*; conſiſting of a great Number of Miniſters and Elders, aſſociated for governing particular Churches. (3.) The *higheſt Court* is a *Synod*, which they hold may be *Provincial*, *National*, or *Oecumenical*; and allow of *Appeals* from the *leſſer* to the *greater*. They baptize by *Sprinkling*, as does the Church of *England*, and their common Worſhip conſiſts in *extempore Prayer*, *Preaching*, and *ſinging* of *Pſalms*.

Independents. II. *INDEPENDENTS*, ſo call'd, becauſe they hold that every particular Congregation hath a compleat Power of *Juriſdiction* within itſelf, *independent* of any *Biſhop*, *Synod*, or *Council*; and ſo diſcard all *Superiority* or *Subordination* of *particular Churches* to one another. In moſt other Reſpects they agree with the *Preſbyterians*.

Anabaptiſts or Baptiſts. III. *ANABAPTISTS*; or (as they call themſelves) *Baptiſts*; their main diſtinguiſhing Principle is *Baptiſm* by *Dipping* or *Plunging* the Perſon *wholly* under Water; and reject the Method of *Sprinkling*, uſed by others, as an *Innovation*, or *human Invention*, and altogether *unſcriptural*. For the ſame Reaſon, they inſiſt upon it that *adult* or *grown Perſons*, not *Infants*, are the proper *Subjects* of *Baptiſm*; becauſe, as the *Scripture* requires, they only are capable of *Repentance* and *Faith*, which are the *Prerequiſites* thereto. For their *Opinion*, they alledge, (1.) The *Precept* and *Precedent* of Chriſt himſelf. (2.) And of the *Apoſtles*. (3.) The *Practice* of the *Primitive Church* for the firſt *three Centuries*. (4.) The *proper Etymology* of the Word *Baptize*, which they ſay will not admit *Sprinkling*. (5.) The *ſeveral Verſions* of the *New Teſtament*, which all render the Word in Favour of *Dipping*, not of *Sprinkling*. (6.) From the *Deſign*

Deſign of the *Ordinance*, they argue *Infants* can't be the *Subject*, becauſe not capable of anſwering it. (7.) The utter *Silence* of the *Scripture* about *Pedobaptiſm*. (8.) The Words of the *Rubric* of the *Church of England* itſelf, which *abſolutely* enjoin *Dipping*, but *Sprinkling* only on *Conditions*. (9.) The *Confeſſions* and *Conceſſions* of ſeveral *Biſhops* and *learned Doctors* of the *Church* in favour of *Dipping* only the *Adult*. To all which, and many other Arguments, the *Pedobaptiſts* return various Anſwers; but whether *ſufficient*, is not my Buſineſs here to ſay. This *Denomination* comes near the *Preſbyterians* in their *Hierarchy*; and acknowledge *Hebrews* vi. 1, 2. for a kind of *Summary* of their *fundamental Doctrines* and *Principles*.

Quakers.

IV. *QUAKERS*, ſo call'd from *Quivering* and *Quaking*, and ſuch like *frantic* and *ridiculous Emotions*, which they ſeem'd fond of *formerly*; but now are more ſober, and diſown the Name of *Quakers*. The Tenets of this People are always variable and changing; but their two main *Principles* are, (1.) The *Light within*, which they ſay is ſufficient to guide every Man in Matters of *Religion*, and is more infallible than the *ſacred Scriptures* themſelves. (2.) They deny all *external Ceremonies* and *Services*, but *Preaching* and *Praying*; and even the two Sacraments, *Baptiſm* and the *Euchariſt*. Their other *Modes* are too well known to need a *Deſcription*. They firſt appear'd about the Year 1650.

Of JUDAISM; *or the* RELIGION *and* STATE *of the* JEWS.

Hebrews, *whence ſo called.*

THE People of whom we are now about to ſpeak, were *originally* called *Hebrews*: *Abraham* was firſt called by this Name by the *Canaanites*, Gen. xiv. *ver.* 13. and from him it continued with all his Poſterity. See *Gen.* xxxix. 14 and 17. Now *Abraham* was called an *Hebrew*, either from his being of the Family of *Heber*, Gen. xi. 14. who was in the ſeventh *Generation* before him, or elſe from a Word of the ſame Sound nearly, which ſignifies *beyond*, or to *paſs over*; becauſe he lived *beyond* the River *Euphrates* in *Meſopotamia*, and from thence he *paſs'd over* the ſaid River to come into the Land of *Canaan*.

Iſraelites, *whence.*

AFTERWARDS, when *Jacob* the *Grandſon* of *Abraham* receiv'd the Appellation of *Iſrael*, *Gen.* xxxv. *ver.* 10. the *Jews*, being the Deſcendants from him, were called *Iſraelites*; and the Land of *Canaan*, which they afterwards inhabited, was alſo called the *Land of Iſrael.*

Land of Iſrael

Jews, *whence.*

FROM *Judah* (which, in the *Original*, is *Jehudah*) the fourth Son of the Patriarch *Jacob*, and the Head of the *principal* of the *Twelve Tribes*, the *Iſraelites* came to be call'd *Jews*; and the Land of *Iſrael*, the Land of *Judah*; and ſimply *Judea*, in all ſucceeding Ages.

Land of Judea.

The Original of the Jewiſh *State and Religion.*

THE Story of the Servitude of the *Hebrews* under the *Egyptians*, their *miraculous Deliverance* from thence by *Moſes* and *Aaron*, and their receiving the *Model* of their *Civil*, *Moral*, and *Religious State*, in their Return from thence to the Land of *Canaan*, are Particulars at large related in the *Pentateuch* of *Moſes*'s own

own Hand-writing. The latter Article of which, concerning the *Religious* and *Civil State* of the *Jews*, after they were ſettled in their own Land, is what we ſhall here take a *general Survey* of.

THE Laws of the *Jews* were threefold, *viz.* (1.) *Moral*; (2.) *Ceremonial* or *Eccleſiaſtical*; and (3.) *Civil* or *Political*. And all theſe were ſanctioned either by Divine or Human Authority. And laſtly, they were divided into the *Written Law*, and the *Oral Law*. The *Written Law* was that which God deliver'd to *Moſes* from *Mount Sinai*; and which he immediately committed to *Writing*, for the Uſe of the *Jewiſh Church*, as it is contained in the Books of *Exodus* and *Leviticus*. The *Oral Law* is that which was (as the *Jews* pretend) deliver'd to *Moſes* at the ſame time from *Mount Sinai*; which they ſay was the *Explication* of the *Written Law*; and which *Moſes* deliver'd by Word of Mouth to *Joſhua*, and he in the ſame manner to the *Seventy Elders*, they to the *Prophets*, theſe to the *Great Synagogue*, and from thence it was delivered ſucceſſively to the *wiſeſt Rabbi's*; till at laſt it was collected together, and thrown into Writing, leſt it ſhould be loſt in the extreme Diſperſion of the *Jews*, and which they call the *Talmud*. The *Jews* prefer the *Oral Law*, or the *Talmud*, to the *Written Law* of *Moſes*. They give theſe Reaſons: (1.) The *Oral Law* is the *Foundation* of the *Moſaical Law*; this being deliver'd in one *Day*, that required thirty-nine. (2.) It is a large *Commentary* on the *Moſaical Law*, and explains (ſay they) its dark and doubtful Paſſages. (3.) They ſay the *Law* of *Moſes* is very *ſcanty* and *defective*, to which the *Talmud* is a very ample *Supplement*; and ſuch other Stuff. Wherefore, ſay they, nothing is *ſuperior* to the *moſt holy Talmud*. In this reſpect then, you ſee how much the Papiſts and they are alike.

Jewiſh *Laws threefold.*

Written and Oral Law.

Written Law, what.

Oral Law, what.

The Talmud preferred by the Jews *to the Law of* Moſes, *and why.*

THE whole Body therefore of the *Jewiſh Laws* are contain'd in the Books of the *Old Teſtament*, and the *Talmud*; in both which we conſider *two Parts*, viz. the *Text*, and the *Explanation*. The *Text* of the *Old Teſtament*, by the *Jews* in their *own Tongue*, is called the *Torah*, eſpecially *Moſes's Law*. And the *Explanation* thereof, by way of *Paraphraſe*, is called the *Targum*; which ſignifies, in *Chaldee*, the ſame Thing

The Torah, what.

The Targum, what.

Thing as *Paraphraſe*; they being wrote in the *Chaldean Tongue* long after their *Captivity*. Of theſe *Targums* there are two of principal Notice, *viz.* the *Targum* of *Onkelos*, on the *Pentateuch*; and the *Targum* of *Jonathan*, on all the *Prophets*. There are other *Targums*, but of leſs Note and Worth. 'Tis uncertain who the famous *Targumiſt Onkelos* was, and when he lived; but for the other *Targumiſt Jonathan*, 'tis certain he was the Son of one *Uziel*, and the chief Scholar of the celebrated *Jewiſh* Doctor *Hillel*, before our *Saviour's Birth*.

The Talmud conſiſts of two Parts, viz. *the Miſchnah*,

CONCERNING the other Part of the *Jewiſh Pandects*, or Body of Laws, the *Talmud*; it conſiſteth of two Parts alſo; *viz.* the *Text*, which they call the *Miſchnah*, (i. e. the *ſecondary Law*) which contains all the *Oral Traditions* of the *Fathers* and *Rabbi's*, from *Moſes* to the Time of *Rabbi Judah* the *Holy*, who collected and compacted them all into this Part of the *Talmud*, about 150 Years after Chriſt. The

And Gemara.

other Part of the *Talmud* is call'd *Gemara*, (i. e. the *Supplement*) which contains *Variety* of *Commentaries* on the *Miſchnah*, or firſt Part, with the *Diſcuſſion* and *Deciſion* of various Opinions. This was added about *A. C.* 500.

The ſix great Parts of the Talmud, viz.
Zeraim.
Moed.
Naſhim.
Nazikin.
Kodaſhim.
Tahoroth.

THE whole *Talmud* is divided into *ſix general Parts*, as follow: (1.) *Zeraim*, Seeds. This treats of the various Kinds of *Seeds*, *Herbs*, *Trees*, *Fruits*, &c. of the Earth. (2.) *Moed*, which treats of divers *Feaſts* and *Solemnities*. (3.) *Naſhim*, of *Women*. This treats of *Women*, of *marrying* and *divorcing Wives*, and all other *Incidents* proper to them. (4.) *Nazikin*, of *Damages*. This treats concerning *Damages*, *Nuiſances*, &c. with their Penalties, and *Compenſation*. (5.) *Kodaſhim*, of Holineſſes; this treats of various Kinds of *Sacrifices*, and other ſacred Things. (6.) *Tahoroth*, of *Purifications*; which treats of all kinds of *Purity*, and *Uncleanneſs* and *Pollutions* of Veſſels, and other Things.

The Peruſchim, or Jewiſh *Commentaries on the Old Teſtament.*

BESIDES the *Targums*, or *Chaldee Paraphraſes* on the Books of the *Old Teſtament*, there are various *Commentaries* wrote by the *Rabbi's*, the chief of which are theſe three, *viz.* (1.) The *Commentaries* of *Rabbi Salomon Jarchi*, which are ſhort and difficult. (2.) Thoſe of *Rabbi Aben Ezra*, which are generally larger and

and easier. (3.) Lastly, The *Commentaries* of *Rabbi David Kimchi*; these are very large, and very easy to be read and understood. These *Peruschim*, or *Rabbinical Commentaries*, are very useful and necessary to be understood by *Christian Divines*.

The moral Law of the Ten Commandments, call'd the Decalogue.

HAVING taken a View of the Books containing the *Jewish* Laws, we shall next take notice of the Laws themselves. The *First Sort* of which is the *Moral Law*, which they receiv'd a *Summary* of from God himself, in *Ten general Precepts*, and wrote with God's own Hand on two Tables of Stone, which he deliver'd to *Moses* on *Mount Sinai*, for the Use of the *Jewish Church*. These *Ten Commandments* are call'd the *Decalogue*, and may be seen in *Exod.* xx. and *Deut.* v. To these general Heads of *Morality* contain'd in the *Decalogue*, there were added divers particular *Rules* and *Precepts* suited to the Cases of *private Life*; all which *Moses* wrote in a Book, and then read it to the People.

The seven Precepts of Noah, *by Tradition.*

To these *Mosaical Precepts* of *Morality*, which are of *Divine Authority*, may be added the *Seven Precepts* of *Noah*, which are merely *Traditional*; *Noah* having (as the *Jewish Doctors* pretend) receiv'd the first *Six* by *Tradition* from *Adam*, and added the seventh himself, from whom the *Rabbinical Doctors* say they have them also by *Tradition*: They are as follow. (1.) To renounce all *Idolatry*. (2.) To *bless* the Name of God. (3.) To abstain from *shedding Blood*, or *Murder*. (4.) Not to uncover one's *Nakedness*, by which *Fornication*, &c. is forbid. (5.) Not to steal, or commit *Rapine*. (6.) *Judgments* or *Punishments* of *Malefactors*. (7.) Not to eat any Part of a Beast taken from it alive. These *traditional* Precepts of *Noah* were to be acknowledged and observed by those whom the *Jews* call'd the *Proselytes* of the *Gate*.

What they be.

By whom to be observed.

The Ceremonial Law.

THE *Ceremonial Law* of the *Jews* was that which appointed the *Rites*, *Ceremonies*, and *Ordinances*, which made up the *Jewish* Service and Worship. This consisted principally of the following Parts. (1.) Sacrifices and Offerings. (2.) Libations. (3.) Prayers. (4.) Preaching. (5.) Confession.

The Jewish *Worship.*

The Sacrifices, of what made.

THE Sacrifices were made only of five Sorts of Creatures, *viz.* Oxen, Lambs, Goats, Turtle-Doves,

and young Pigeons. They were of four Sorts. (1.) *Of how many ſorts.* The *Holocauſt*, or *whole Burnt-Offering*, every Part whereof was conſumed by Fire, *Levit.* i. (2.) The *Meat-Offering*, conſiſting of fine Flour mingled with Oil, *&c.* See *Levit.* ii. (3.) The *Peace-Offering*, the Manner of which ſee in *Levit.* iii. (4.) The *Sin-Offering*, of which you have an Account in *Levit.* iv. and following Chapters.

Libations, or Drink-Offerings. THE *Libations* were thoſe *Drink-Offerings* which were added to the *Sacrifices*. Theſe were made of various Quantities of ſtrong *Wine*, which was pour'd forth to the Lord in the *Holy Place* of the *Tabernacle*; concerning which you may read *Numbers* xxviii. and xxix.

Their Prayers. THEIR Prayers made another Part of their *Service*; theſe at firſt were very few, but afterwards increas'd to a very large Bulk. Their *Liturgies* and *Rubrics* are ſo long, tedious, and perplex'd, that in this Reſpect, as well as ſeveral others, they vie with, if not exceed, the ſuperſtitious *Roman-Catholics*. The moſt ſolemn Part of their Prayers are thoſe which they call *Shemoneh Eſhreh*, or the *eighteen Prayers*, which they ſay were compoſed by *Ezra* and the *great Synagogue*; to which another Prayer was afterwards added.

Their reading and expounding the Scriptures. THE *reading* and *expounding* the *Scriptures* made the moſt conſiderable Part of the Service of the latter *Jews*. The reading the Scriptures is of three Sorts. (1.) The *Kiriath Shema*, or *reading* the *Shema*; it conſiſts in reading three Portions of the *Scripture*, viz. from *Deut.* vi. *ver.* 4 to 10. from *Deut.* xi. *ver.* 13 to 22. and from *Numb.* xv. *ver.* 37 to the End of the Chapter. This *reading* the *Shema* is accompanied with ſeveral Prayers and Benedictions. (2.) The reading the Law; which in the *Hebrew Bibles* is divided into 54 *Sections*, one of which they read on each *Sabbath*, and ſo the whole Law was read once a Year. (3.) The reading of the Prophets. In the Time of Perſecution under *Antiochus Epiphanes* the *Jews* were forbid to read the Law; inſtead of which they ſubſtituted 54 *Sections* out of the *Prophets*, and read them to the Times of the *Maccabees*, who reſtored the reading of the Law, and then both were read; the one for the *firſt*, the other for the *ſecond Leſſon*. See

Kiriath Shema.

Reading the Law.

Reading the Prophets.

Acts

Acts xiii. 15. and 27. After reading theſe Leſſons, they preach'd to the People. *Preaching.*

THE next thing reſpecting the *Jewiſh Worſhip* is their *Feſtivals*; of which they have ſeveral. As (1.) The *Sabbath-Day*, which they dedicated wholly to *Reſt*, and *Religious Purpoſes*. (2.) The *Paſſover*; for the Time and Manner of celebrating it, ſee its Inſtitution in *Exod.* xii. This was call'd the *Feaſt of unleavened Bread*. (3.) The Feaſt of *Pentecoſt*; ſo call'd becauſe it was the *Fiftieth Day* (or *Seven Weeks*) after the ſecond of the Paſſover; its Inſtitution is in *Levit.* xxiii. 17, *&c.* The Feaſts of the *Paſſover* and *Pentecoſt* anſwer to our *Eaſter* and *Whitſuntide*. (4.) The *Feaſt* of *Tabernacles*; during which the People lived in *Booths*, which was ſeven Days. See *Levit.* xxiii. 34. and *Numb.* xxix. 12. (5.) The *Feaſt* of *Trumpets*; this began the firſt Day of the Month *Tiſri*, and was proclaim'd by Blowing of *Trumpets*. (6.) The *Feaſt* of *Expiation*, call'd the Day of *Atonement*; and this was the Day on which the Prieſts went into the *Sanctuary*. See *Levit.* xxiii. 27, *&c.* (7.) The *Feaſt* of *New-Moons*; this was every *firſt Day* of their Months. See *Numb.* xxviii. 11. (8.) The *Sabbatical Year*, or *Year* of *Reſt*, wherein they neither ſow'd nor reap'd; this was every ſeventh Year: *Levit.* xxv. 2, 3, 4. (9.) The *Year* of *Jubilee*; which was every *fiftieth Year*: This was a *Sabbath* of *annual Sabbaths*; this was the laſt Feaſt God commanded the *Jews*, and the moſt ſolemn; for then all Eſtates alienated return'd to thoſe who had ſold them, and Slaves recover'd their *Liberty*. (10.) Feaſt of *Purim*, or *Lots*: See its Original in *Eſther* ix. 21. In this Feaſt the Hiſtory of *Eſther* was read, and at every Mention of *Haman*, the *Jews* ſmote upon their Benches and Seats, as if they would knock him on the Head. (11.) The *Feaſt* of *Dedication*; of this we read *John* x. 22, *&c.* This was an *anniverſary* or *yearly Solemnity* appointed by *Judas Maccabæus* in Commemoration of the *Jews Deliverance* from the *Tyranny* of *Antiochus*; concerning which ſee 1 *Maccabees* iv. All *Feſtivals* began and ended on the Evening of the Day.

The Jewiſh *Feſtivals.*
The Sabbath.
The Paſſover.
Of Pentecoſt.
Of Tabernacles.
Of Trumpets.
Of Expiation.
Of New Moons.
The Sabbatical year.
Of Jubilee.
Of Purim, or Lots.
Of Dedication

THE *Places* conſecrated to *Divine Service* under the *Jewiſh Diſpenſation*, were (1.) The *Tabernacle*, which *Places of Divine Worſhip.*

The Tabernacle which was moveable, and but for a Time, *viz.* of their *ſojourning State.* (2.) The *Temple* built by *Solomon.* In both theſe there were three remarkable Parts, *viz.* 1. The *Sanctum Sanctorum*, or *Holy* of *Holies*, the moſt holy Place; into which only the High-Prieſt might enter, and that but once a Year; which was on the *Feaſt* of *Expiation*, to make an Atonement for the People. 2. The *Sanctuary*, or that Part before the *Holy* of *Holies*. 3. The *Court* before the *Tabernacle* and *Temple.* (3.) *Synagogues*; theſe, with reſpect to the *Temple*, were as Pariſh-Churches with us in regard of the *Cathedral Churches.* The Rule was, to have a *Synagogue* in every Place where there was ten *Batelnim*, or Perſons of full Age, and free Conditions, always ready to attend the Service of it. (4.) The *Proſeuchæ*, *Oratories*, or *Houſes* of *Prayer.* Theſe were not cover'd, but open above, like Courts; and in which every one pray'd apart for himſelf, as in the *Courts* of the *Temple.* They were built chiefly on high Places, and are the ſame, probably, which in the *Old Teſtament* are call'd *High-Places.*

The Temple.

Holy of Holies.

Sanctuary.

Court.

Synagogues.

Proſeuchæ, Oratories, or Houſes of Prayer.

High Places.

Religious Orders.

As to the *religious Orders* in the *Jewiſh* Miniſtry, the principal was the *Sacerdotal Order*, or that of the *Prieſthood.* In this Order there was one *Chief* or *Head*, call'd the *High-Prieſt.* Of theſe *Aaron* was the Firſt, and the *High-Prieſthood* was peculiar, or tied, to his Firſt-Born; and that thro' all Ages of the *Jewiſh Oeconomy.* (2.) The *common Prieſthood*, to which the Poſterity of *Levi* was particularly conſecrated. The peculiar Offices of the *Aaronical* and *Levitical Prieſthood* are largely ſet down in the Books of *Moſes*; together with the Manner of the Conſecration and Ordination proper to each. (3.) The *Nethinims*, who were a ſort of an Order of *Deacons*; they were Hewers of Wood and Drawers of Water for the Houſe of God. Theſe were neither *Levites*, nor even *Iſraelites*, but tributary *Gibeonites.* See *Joſh.* ix. 23. and *Ezra* ii. 43. Theſe three Orders were proper to the *Cathedral* or *Temple Service:* But beſides theſe there were (4.) *Elders* or *Rulers* of the *Synagogues*; and next to theſe (perchance one of them) was (5.) The *Miniſter* of the *Synagogue*, whom they call'd *Sheliach Zibbor*, i. e. the *Meſſenger or Angel of the*

Prieſthood.

The Levitical *Prieſthood.*

Nethinims.

Elders of the Synagogue.

The Sheliach Zibbor, *or*

the Church: In reference to whom, the Biſhops of the Seven Churches of *Aſia* are ſo call'd, *Rev.* i. 20. Under theſe were (6.) The *Chazanim* or *Overſeers* of the *Synagogue*, who had the Charge of all Things in it, and kept the Books of the Law, Prophets, Liturgies, *&c.* with the Utenſils belonging to the *Synagogue Service:* But particularly the *Chazan* ſtood by, overlook'd, directed, and corrected thoſe who read the *Leſſons* out of the *Law* and the *Prophets*. See *Luke* vi. 20. (7.) The next Officer was the *Interpreter*, whoſe Buſineſs it was to render the Leſſon read in *Hebrew* into the *Chaldee*, which Language the common People, after the Captivity, could only underſtand; their own Tongue, the *Hebrew*, being as unknown to them, as the *Latin* to us; and was learn'd in the ſame manner in Schools.

Angel of the Church.

The Chazanim or Overſeers.

The Interpreter.

AMONGST the *Jews* we read of divers *religious Sects*, and other Diſtinctions of Men. As (1.) the *Samaritans*; who were a kind of *mongrel Heathens* at firſt, who worſhipped the God of *Iſrael* in Conjunction with *Pagan Deities*. Afterwards they rejected *Idolatry*, and conform'd to the *Moſaical Law*; beſides which they reject all the other Books of the *Old Teſtament*, and all *Traditions*, together with the *Temple Worſhip* at *Jeruſalem*; aſſerting *Mount Gerizim* was the Place where God was to be worſhipped. (2.) The *Sadducees*; theſe at firſt only rejected the *Traditions*, and ſtuck to the *written Law*, but afterwards they imbib'd impious Doctrines, denying the *Reſurrection* of the *Dead*, the Being of *Angels* and *Spirits*, and were in all Reſpects a Sect of *Epicurean Deiſts*. (3.) The *Karrites*; they differ from the *Jews* in common, by rejecting their *oral Traditions* and all *Superſtitions*, and adhering ſtrictly to the *written Word*. (4.) The *Phariſees*; this was the greateſt Sect among the *Jews*, or rather the *general Church*, in regard of which the other were *Diſſenters*. Theſe receiv'd not only the *written Canon* of *Scripture*, but held all manner of *Traditions*, and invented many *Superſtitions*, affecting to appear very *ceremonious* and *religious*, and that to a moſt obvious and ſhameful Degree of *Hypocriſy*. (5.) The *Scribes*; theſe were not a *religious Sect*, but a *Profeſſion* of Men following *Literature*, and were what we call *Doctors* or *Teachers*; they were of

The various Sects and Societies amongſt the Jews.

Samaritans.

Sadducees.

Karrites.

Phariſees.

Scribes.

of two Sorts, *viz.* ſuch as taught the Law and the Prophets in the *Synagogues* and *Schools*; and ſuch as taught the *Civil Law*, and were therefore call'd *Lawyers*. (6.) The *Nazarites*, and (7.) The *Rechabites*; of the firſt ſee *Numbers* vi. and for the latter, *Jeremiah* xxxv. (8.) The *Eſſens*, a Sect more *rigorous* and *enthuſiaſtical* than the *Phariſees*. They held *abſolute Predeſtination*, and deny'd all Free-Will and Free-Agency in Man. They held a *Future State*, but denied the *Reſurrection* of the *Dead*, like our *Quakers*. They were a plain, honeſt, retir'd, and *friendly Society*; and 'tis ſaid they denied themſelves the Uſe of Women, the Pleaſures of *Money* and *Honours*, and all other carnal and worldly *Delights*. (9.) The *Gaulonites*, who ſprang from one *Judas Gaulonites*, or otherwiſe call'd *Judas* of *Galilee*, Acts v. 35. they were therefore alſo call'd *Galileans*; and it was their Blood that *Pilate* mix'd with their *Sacrifices*, Luke xiii. 1. (10.) *Herodians*; who (as 'tis ſaid) were ſo call'd, becauſe they took *Herod the Great* to be the *Meſſiah*, and honour'd him with ſuperſtitious *Solemnities* annually on his *Birth-Day*; though others give a different Account of them (11.) *Proſelytes*; theſe were Converts to *Judaiſm* from among the *Heathens*; they were of two Sorts, *viz.* Firſt, *Proſelytes* of the *Covenant*, who ſubmitted to *Circumciſion*, and all the *Moſaical Rites* and *Ordinances*. Second, *Proſelytes* of the *Gate*, who were only tied to the Obſervance of the *ſeven Precepts* of *Noah*, before-mentioned: This Sort was call'd the *Stranger within thy Gates*, Deut. xiv. 21. (12.) *Publicans*; theſe were no Sect, but *Civil Officers*, whoſe Buſineſs was to collect the *Taxes* and *Tributes* impoſed by the *Roman* Emperors on ſuch Provinces as were under their *Juriſdiction*; and were odious to the *Jews*, both becauſe they were *Strangers*, and becauſe they exerciſed great Injuſtice and Oppreſſion in executing their Office among the *Jews*, who ſuppoſed they had no Right to pay Tribute at all. (13.) Beſides theſe Sects and Officers there was amongſt the *Jews* a Set of Men call'd *Maſorites*, whoſe Employ was in numbering all the *Verſes*, *Words*, and *Letters* in each Book throughout the Bible. They wrote marginal Notes on grammatical Matters; and obſerv'd very *punctually* the *various Readings*,

Nazarites.
Rechabites.
Eſſens.
Gaulonites.
Herodians.
Proſelytes of the Covenant.
Of the Gate.
Publicans.
Maſorites, their Office.

Readings, call'd *Keri Cetib*. *Keri* ſignifies the Word as it is *read*; *Cetib* the ſame Word as it is found written in the Text of the Bible. So that *Keri* is only the *true Reading* of the Word in the Margin, oppoſite to the *wrong Reading* (or *Cetib*) in the Text. *The Keri Cetib what*

THE *Initiatory Rites* of the *Jewiſh Church*, or thoſe whereby Perſons were made Members of it, were (1.) *Circumciſion* of the Male; this was call'd by God, a *Sign* and *Seal* of the Covenant he made with *Abraham* and his Poſterity the *Iſraelites*. See its Inſtitution, and the Manner thereof in *Gen.* xvii. (2.) *Purification*, by Baptizing or Waſhing the Body with *Water*; this was ſucceeded by (3.) An *Oblation* of two *Turtles* or *Pigeons*. Now, ſince the *Jews* have neither Altar nor Sacrifice, they ſay *Circumciſion* and *Purifying* ſufficeth for a *Male Proſelyte*; and the latter only for *Female Proſelytes*. *The Initiatory Rites of the* Jews. *Circumciſion*. *Purification*. *Oblation*.

THE *Jews*, before their Captivity, were extremely prone to *Idolatry*, or the Worſhip of *Heathen Deities*; As (1.) *Moloch* (ſometimes call'd *Milcon*) the God of the *Ammonites* and *Moabites*. (2.) *Adramelech*, *Anamelech*, *Aſhima*, *Nergal*, *Niſroch*, *Nibhas*, and *Tartak*, Idols of the *Aſſyrians*; of which ſee 2 *Kings* xvii. 30, 31. (3.) *Succoth Benoth*; this is ſuppoſed to be an *Aſſyrian Temple*, with the Idolatrous Rites belonging thereto. (4.) The *Idols* of the *Egyptians* were *Ciun* or *Remphan*, (*Saturn*;) *Tammuz*, (or *Adonis*,) of which ſee *Ezek.* viii. 14. (5.) *Teraphim*; theſe were a kind of *Houſhold Gods*, or *Images* in human Shape, which the *Iſraelites* had alſo from the *Egyptians*. Another *Idol* of theirs was *Baal-Zephon*; though, according to others, it was the Name of a City. Alſo *Apis*, or the *Golden Calf*, is reckon'd amongſt the *Egyptian Idols*. (6.) The Idols of the *Moabites* worſhipped by the *Jews* were *Baal-Peor*, Numb. xxv. 3. and *Cemoſh*, Numb. xxi. 29. (7.) The Idol of the *Zidonians* was *Aſhtaroth*, ſuppoſed to be *Venus* or the *Moon*. (8.) *Baal Zebub* (i. e. the *God of Flies*,) was an Idol of the *Philiſtines*. Alſo *Dagon* was another of their Gods, *Judg.* xvi. 23. His lower Part was in the Form of a *Fiſh*. Theſe are the principal Idols mention'd in the *Old Teſtament*; to worſhip which the perverſe *Jews* often left the Worſhip of the true God. *The Idolatry of the* Jews. *The Idols of the Ammonites*. *Of the Aſſyrians*. *Of the Egyptians*. *Teraphim, what*. *Of the Moabites*. *Of the Philiſtines*.

THERE

The most notable Things in the first Temple wanting in the second.

THERE were divers notable Things in the Temple which *Solomon* built, too many here to relate; the most material of which were lost to the *Jews* in the *Destruction* of that Temple by *Nebuzaradan*, Captain-General to *Nebuchadnezzar* King of *Babylon*. These are reckon'd

viz. The Ark and Mercy-Seat.

(1.) The *Ark* of the *Covenant*, wherein were kept the two Tables of the Law; and over it the *Mercy Seat*, or *Propitiatory*; from whence the High Priest receiv'd the Divine Oracles immediately from

The Shecinah, or Divine Presence.

(2.) The *Shecinah*, or *Divine Presence* of the Majesty of God, which appear'd in Form of a *Cloud* over the *Mercy Seat* between the extended Wings of the *Cherubims*. 'Tis thought these *sacred Oracles*

The Urim and Thummim.

were utter'd with an audible Voice. (3.) The *Urim* and *Thummim*, which Words signify *Lights* and *Perfections*. They pertain'd to the *Breast-Plate* which the *High Priest* wore, but how cannot be said; only 'twas a necessary *Qualification* to appear before the

The celestial Fire of the Altar.

Shecinah withal. (4.) The *Celestial Fire* of the Altar, which at first came down from *Heaven*, and kept burning incessantly till the Temple was destroy'd. See *Levit.* ix. 24. and 2 *Chron.* vii. 1. (5.) The

The Holy Oil.

Holy anointing Oil; wherewith the *High-Priests* and the *Kings* were consecrated in their *Ordinations* and

The Holy Spirit of Prophecy.

Inaugurations. (6.) The *Holy Spirit* of *Prophecy*: Though this did not presently cease upon the Destruction of the first Temple, as all the abovemention'd Particulars entirely did; none of which were found in the *Second Temple* built under *Zerubbabel* the Governor of *Judah*. But the Want or Deficiency of

Compensated by the Presence of the Messiah.

these things was abundantly compensated by the *Presence* of him who was the *Desire* of all *Nations*, the truest *Shecinah*, and who did really fill that latter House with *Glory*, as was foretold, *Hagg.* ii. 7.

The Jewish *Creed contains 13 Articles.*

THE *Jewish Creed* consisteth of the following thirteen Articles. (1.) There is *one God*, Creator of all things; all-perfect and sufficient. (2.) That he is an uncompounded, indivisible Essence. (3.) That he is Immaterial. (4.) Absolutely Eternal. (5.) Alone to be worship'd, without any *Mediators* or *Intercessors*. (6.) There have been, and may be *Prophets*. (7.) That *Moses* was the *greatest Prophet*. (8.) That *every Syllable* of the *Law* was given to *Moses* by *Inspiration*; and that the *traditionary Expositions*

ſitions of the Precepts were entirely a *divine Revelation* given to *Moſes*. (9.) That the Law is immutable. (10.) That God knows and governs all our Actions. (11.) That he *rewards* the *Obſervance*, and *puniſhes* the *Violation* of his Laws. (12.) That the *Meſſiah* will appear, but that his Coming is delay'd. (13.) That God will *raiſe* the *Dead*, and *judge* all Mankind.

The Jewiſh *State and Government.*

THE *Jewiſh State* and *Government* hath undergone divers Changes and Mutations. It was (1.) *Patriarchal*, when the *Fathers* of their ſeveral *Families*, and their *Firſt-born* after them, exercis'd all kind of Government, *Eccleſiaſtical* and *Civil*, being both *Prieſts* and *Kings* in their own *Houſes*. They had Power over their own Families, to *bleſs*, *curſe*, *caſt out*, *diſinherit*, and to *puniſh* with Death, as is apparent from the Book of *Geneſis*. After this Prerogative of *Primogeniture* ceaſed, there enſued (2.) A ſort of *Dictatorial Government*; or that under *Moſes*, *Joſhua*, and the *Judges*. But during the Times of the *Judges*, there were very often long *Intervals* and *Vacancies* between the Death of one, and the Election of another Judge; in all which the State of Government depended on the Adminiſtration of the *Great Court* of the *Seventy Elders*, call'd the *Sanhedrim*; firſt inſtituted *Numb.* xi. 16. in reſpect of whom the Government may be ſaid to have been *Ariſtocratical*. To this ſucceeded (3.) A *Monarchical State*, or that of *Kings*; which began in *Saul*, and continued in *Judah* and *Iſrael* till the *Captivity* of each, which was about 520 Years. (4.) From the *Captivity* to the *Advent* of *Chriſt* their *State* was *various*, and confus'd: As firſt they were under *Aichmalotarchs*, or *Heads of the Captivity*; from *Zerubbabel* to *John Hircanus*, fifteen incluſive, all of the Poſterity of *David*. Secondly, From thence the *Sovereign Authority* departed from the *Houſe of David*, to the *Maccabees*, or *Aſſmonean Princes*; beginning in *Matathias Maccabeus*, and ending in *John Hircanus*, five incluſive, all of the *Lineage* of *Levi*. Laſtly, They came again under the *Regal State*, being govern'd by *twelve Kings*; the firſt of which was *Ariſtobulus*, and the laſt *Agrippa* Junior, the laſt of the Line of *Herod* the Great. In him the *Kingdom* of the *Jews* expir'd, and

Patriarchal.

Dictatorial and Ariſtocratical.

Monarchical.

Captivated State.

Aichmalotarchs.

Maccabees, or Aſſmonean Princes.

Regal State again.

and not long after their *City* and *Temple* were deſtroyed, and themſelves diſperſed over the Face of the whole Earth, for their heinous Sin in rejecting and crucifying the Lord of *Life* and *Glory*.

THERE ſeems plainly to have been a *two-fold Court* of *Judicature* amongſt the *Jews*; the firſt Eccleſiaſtical, appointed and held to judge and determine *Affairs and Matters* relating to *Church Diſcipline*: The ſecond, a *Civil Judicatory*, concern'd in the Affairs of the *Common-Wealth*. The firſt was call'd a *Synagogue*, the other a *Council*: As *Matt.* x. 27. The *Spiritual Court* conſiſted of *Levites*, *Prieſts*, and the chief *Fathers* of *Iſrael*, as 2 *Chron.* xix. 8. and in Cauſes ſpiritual for the Lord, the *High-Prieſt*, or *Archbiſhop*, was Chief. The *Civil Courts* of *Juſtice* were made up of *ſecular Judges*, and *various Officers*, of which more by and by.

The Cenſures of the Eccleſiaſtical Court.

THE Office of the *Eccleſiaſtical Court* was to determine *Appeals* in all Controverſies of Difficulty; but chiefly, as a *Repreſentative Church*, to *cenſure* and *excommunicate Offenders* againſt the Orders and Laws of *Church Diſcipline*. Of *Excommunication* there were *three Degrees*. (1.) The firſt is call'd *Nidui*, i. e. a *Separation*, or *putting away*; a *caſting* out of the *Synagogue*, John ix. 22. Such an one was not to approach within ſeven Feet of any Man or Woman to eat, drink, waſh, ſhave, *&c.* It was of *thirty Days Continuance*, but might be ſhorten'd by *Repentance*. (2.) The next Degree of *Excommunication* was call'd *Cherem* by the *Jews*, but *Anathema* by the *Greeks*; and was a *ſolemn devoting* or *delivering* an heinous Offender over to *Satan*, with direful *Curſes* out of *Deut.* xxviii. and elſewhere. This was call'd *Exciſion*, or a being *cut off from the People*. (3.) The third and heavieſt Degree of *Excommunication* was *Shammatha*, or in *Syriac*, *Maranatha*; this was join'd with an *Exſecration*, by which a Perſon was render'd *exſecrable* before God and Man, and *deſtin'd* to *divine Vengeance*. See 1 *Cor.* xvi. 22. 2 *Tim.* iv. 14. and *Judges* v.

Excommunication of three Kinds.

Nidui, or Separation.

Cherem or Anathema.

Shammatha or Maranatha.

The Jewiſh *Sanhedrim twofold.*

THE *Civil Courts* of *Judicature* were two, the *great* and *leſſer Sanhedrim*: The great *Sanhedrim*, or *ſupreme Senate*, conſiſted of *ſeventy-one Judges*, anſwering to *Moſes* and the *ſeventy Elders* mention'd

Numb.

Numb. xi. They were elected indifferently out of the *Chief Prieſts*, *Scribes*, and *Elders* of the People. Their *Qualifications* were *Piety* and *general Learning*, Men of *Gravity*, and *Fathers* of *Children*, that they might be tender. The Place where they ſat was call'd *Gazith*, or *Council-Chamber*, in the *Temple*. Their way of ſitting was thus; the moſt conſiderable for *Wiſdom* and *Reputation* was placed uppermoſt in the Middle, repreſenting *Moſes*, and was call'd *Naſi*, Prince or *Preſident*. The next for Worth ſat at his Right Hand, and was call'd *Abh Beth Din*, Father of the *Council*, or *Vice-Preſident*. On the Left Hand ſat the *Chacham* or *Wiſeman*; and then the reſt of the *Sanhedrim* ſat part on the Right, part on the Left, in a *Semicircular Form*. Their Power extended to all *Perſons* and *Cauſes*, to a whole Tribe, a *Prophet*, an *High Prieſt*, or even the *King himſelf*.

The great Sanhedrim.

Gazith.

Naſi.

AbhBeth Din.

Chacham.

Their Power.

THE leſſer *Sanhedrim*, or *Beth Din*, was of two Sorts; the firſt conſiſted of *twenty-three Aldermen*, and the other was a *Triumvirate* of three *Aldermen* only. Theſe inferior Courts ſat in the Gates of all the common Cities of the Land. The Power of the *Triumvirate* extended only to petty Matters, as *Whipping*, *pecuniary Mulcts*, &c. That of the *twenty-three* extended to Capital Caſes, and ſat (but with a reſtrain'd Power) on Life and Death. From theſe lower Courts Appeals were made to the *High Court*, from whence there was no Appeal.

The leſſer Sanhedrim.

THE Puniſhments of the *Jews* were of two Sorts, *Capital*, and *not Capital*. The *Capital Puniſhments* were four; (1.) *Lapidation*, or *Stoning* to Death. (2.) *Uſtion*, or *Burning*; though the Perſon burnt was always firſt *ſtrangled*. (3.) *Decollation*, or a *Beheading* of the Perſon. (4.) *Strangulation*, a *choaking* a Perſon by a *String* tied about his Neck. The other *Penalties* were (1.) *Impriſonment*. (2.) *Reſtitution*. (3.) *Retaliation*. (4.) *Baniſhment* to the Cities of *Refuge*, which were ſix, beſides the forty Cities of *Levites*, which were alſo in ſome Meaſure *Aſylums* or *Sanctuaries* for *Felons* to fly to for *Safety*.

Puniſhments Capital, four.

Lapidation.

Uſtion.

Decollation.

Strangulation.

Puniſhments not Capital.

OF *Jewiſh* Money, there is (1.) The *Gerah*; in Value five Farthings. (2.) The *Bekah*; one Shilling, three Half-pence. (3.) The *Shekel*; two Shillings and three Pence Farthing. (4.) The *Mina*, ſix

Of the Jewiſh *Monies.*

Pounds ſixteen Shillings and ten Pence Half-penny. (5.) *Talent* of Silver; worth 342 Pounds three Shillings and nine Pence. (6.) *Talent* of Gold; worth 5475 Pounds. (7.) They had alſo a Golden Shekel, worth one Pound ſixteen Shillings and ſix Pence.

Jewiſh *dry Meaſures.*

THE *Jewiſh dry Meaſures* were, (1.) *Gachal*, one tenth of a Pint. (2.) *Cab*, almoſt three Pints. (3.) *Omer*, about five Pints. (4.) *Seah*, one Peck and one Pint. (5.) *Ephah*, three Pecks and three Pints. (6.) *Lethech*, about four Buſhels, and (7.) The *Homer* or *Choron*, about five Buſhels and a Pint.

Jewiſh *Liquid Meaſures.*

THE *Jewiſh liquid Meaſures* were, (1.) *Caph*, a little above half a Pint. (2.) *Log*, three quarters of a Pint. (3.) *Cab*, about three Pints. (4.) An *Hin*, about one Gallon and two Pints. (3.) *Seah*, two Gallons four Pints and an half. (6.) *Bath* or *Ephah*, about ſeven Gallons and an Half. (7.) *Coron* or *Chomer*, about ſeventy-five Gallons, five Pints and an Half.

Jewiſh *long Meaſures.*

THE *Jewiſh Meaſures* of *Length* were, (1.) The *Palm*, about three Inches and an Half. (2.) *Span*, near eleven Inches. (3.) *Cubit*, one Foot and ten Inches nearly. (4.) *Fathom*, ſeven Feet three Inches and an Half. (5.) *Ezekiel's Reed*, eleven Feet, very nearly. (6.) *Meaſuring Line*, 145 Feet and eleven Inches. (7.) *Stadium*, 145 Paces and four Feet and an Half. (8.) *Sabbath Day's Journey*, 729 Paces and an Half. (9.) *A Day's Journey*, thirty-three Miles and 172 Paces.

Jewiſh *Months and Years.*

THE *Jewiſh Months* were (1.) *Abib* or *Niſan*. (2.) *Zif* or *Jair*. (3.) *Sivan*. (4.) *Thamuz*. (5.) *Ab*. (6.) *Elul*. (7.) *Ethanim* or *Tizri*. (8.) *Bul* or *Marcheſuan*. (9.) *Chiſlen*. (10.) *Tebeth*. (11.) *Shebeth*. (12.) *Ader*. And ſometimes a Month was intercalated, call'd *Ve-Ader*. As the Months ſtand here, they make the *Jews Eccleſiaſtical Year*. But their *Civil Year* began on the ſeventh Month *Tizri*. The firſt Month *Abib* anſwer'd to part of *March* and part of *April*; and ſo on of the reſt. The firſt, ſecond, third, and fourth Watches of the Night began at ſix, nine, twelve and three o'Clock, from Evening to Morning reſpectively.

Eccleſiaſtical and Civil.

Watches.

Of

Of MAHOMETANISM, or the LIFE, RELIGION, *and* POLITY *of MAHOMET and his Followers.*

MAHOMET (or, according to the *true Pronunciation*, *Mohammed*,) was born at *Mecca* a City of *Arabia*; he was of the Tribe of the *Koraiſhites*, which was reckon'd the nobleſt in all that *Country*, and was deſcended in a direct Line of *Primogeniture* from *Pher Koraiſh*, the firſt Founder of it. His Father's Name was *Abdollah*, and the Name of his Mother *Amena*. His Birth was in the Month of *May* in the Year of Chriſt 571. *Mahomet's Birth.*

THOUGH he was of ſo noble a Deſcent, yet in the beginning of his Life he was in a very poor and deſpicable Condition. For his Father dying before he was two Years old, all the Power and Wealth of his Family devolv'd to his Uncles, eſpecially to *Abu Taleb*, who afterwards bore the chief Sway in *Mecca*, and by whoſe Protection he afterwards broach'd his *Impoſture*, and was ſupported againſt all Oppoſers. *Mean at the Beginning.*

HE lived with his Mother till he was eight Years of Age, when ſhe dying, his Grandfather took him; but he alſo dying in a Year after, *Mahomet* was committed to the Care of his aforeſaid Uncle *Abu Taleb*, who being a very great *Merchant*, brought his Nephew up in the Affairs of Merchandiſe, and ſent him with his *Camels* to *Syria*. *How he came to riſe.*

BUT while he attended his Uncle's Factors in the publick Market-place at *Boſtra*, *Mahometan Authors* ſay that a *learned Monk* there perceiv'd a kind of *Luſtre* ſhining upon his Face, and from thence conjectured, and began to predict that *Mahomet* ſhould be a *A fictitious Prediction concerning him.*

Prophet: But this is a groſs *Fiction*, he not being acquainted with that Monk till many Years after.

He marries his Wife Cadigha, *and becomes great.*

HE continued with his Uncle till twenty-five Years of Age, when one of the chief Men of the City dying, he left his Stock, which was very conſiderable, to his Widow *Cadigha*, who invited *Mahomet* to be her Factor, and married him in the twenty-eighth Year of his Age. By this means being equal in Wealth to the greateſt Man in the City, his Ambition made him aſpire to the *Sovereignty* which his Anceſtors had enjoy'd, and of which he himſelf had been only depriv'd by being left an *Orphan*.

Follows Merchandiſe.

HIS trading into *Egypt*, *Paleſtine*, and *Syria*, made him well acquainted both with *Chriſtians* and *Jews*; and perceiving that each of them were divided into *ſeveral Sects*, he concluded nothing would be more likely to raiſe him a Party, and aggrandize him, than the advancing of a *new Religion*.

Projects the Scheme of a New Religion.

AND for ſuch a Change he judg'd the *Citizens* of *Mecca* might be well diſpos'd, becauſe their *Traffic* and frequent Converſe with the *Chriſtians* had taken them very much off from their groſs Idolatry, which they had hitherto been addicted to: But at this time were fallen from *Heatheniſm* into *Zendiciſm*, an Error near a-kin to *Sadduciſm* among the *Jews*; as denying *Providence*, the *Reſurrection*, and a *future State*.

Zendiciſm, what.

He draws up a Scheme of his Impoſture.

HE therefore betook himſelf to frame ſuch a *Religion* as might beſt go down with them, and ſo drew up a *Scheme* of that *Impoſture* he afterwards deluded them with, which being a Medley of *Judaiſm*, the *Hereſies* of the *Eaſtern Chriſtians*, and the old *Pagan Rites* of the *Arabs*, with an *Indulgence* to all *ſenſual Delights*, it did too well anſwer his Deſign, in drawing Men of all Sorts to the embracing of it.

He previouſly leads an Eremitical Life.

BUT that he might not immediately turn *Preacher* againſt that *Idolatry* which he had practiſed with others, and ſet up for a Reformer, and take upon him the Character of a *Prophet*, (ſince he was known to lead an *ill Life*,) without ſome previous Change; in the thirty-eighth Year of his Age he began to affect an *Eremitical Life*, and withdrew every Morning to a *ſolitary Cave* near the City, where he pretended to ſpend his Time in *Faſting*, *Prayer* and *Meditation*: And

And there it is ſuppoſed he had his *Conſults* with thoſe who help'd him to frame his *Alcoran*.

HIS firſt Attempt was to draw his Wife into a Belief of his *Impoſture*, and in order to this when he return'd at Night from the *Cave*, he uſed to tell her of *Viſions* that he had ſeen, and *ſtrange Voices* which he had heard in his *Retirement*. But when ſhe rejected theſe *Stories* as his own *vain Fancies*, or elſe *Deluſions* of the *Devil*, he farther pretended a *Converſe* with the *Angel Gabriel*; which ſhe being as backward to believe as the other, he was obliged to ſuborn a *fugitive Monk* (he kept then in his Houſe) to practiſe with her, who accordingly did ſo, and at laſt he brought her to be perſuaded of the Truth of all her Huſband told her; and alſo that he really was call'd to the *Prophetic Office*; and thus ſhe became his firſt *Proſelyte* in this *Impoſture*. *He declares himſelf Prophet, and firſt attempts to proſelyte his Wife.*

HAVING thus liv'd retir'd two Years, he had gained, as he thought, a ſufficient *Reputation* of *Sanctity* for his Deſign, and in the fortieth Year of his Age he began to take on himſelf the *Title* of the *Apoſtle of God*, and began to propagate his *Deluſions*, but privately for the firſt four Years, and only among ſuch as he had moſt Confidence in. *He propagates his Deluſions privately.*

HIS firſt *Proſelyte* was *Cadigha* his Wife (as has been ſaid) his ſecond was his Slave *Zayd Ebu Hareth*, and the third his Couſin *Ali*, Son of his Uncle *Abu Taleb*. He tempted his Servant *Zayd* by promiſing him his *Freedom*, and upon his receiving his Religion, he accordingly *manumiſed* him. And from hence it became a Law among the *Mahometans* ever ſince, to make their *Slaves free*, whenever they receive their Religion. *His firſt Proſelytes.*

BESIDES theſe, he having proſelyted *eight* or *nine* more of the principal Men of the City, began openly to publiſh his *Impoſture* to the People of *Mecca*, in the forty-fourth Year of his Age; and publickly declar'd himſelf to be a *Prophet* ſent from *God* to reduce them from the Error of *Paganiſm*, and to teach them the *true Religion*. *Begins to propagate his Impoſture openly.*

HE ſaid, his *Religion* was not a *new one*, but that *old one* which God firſt gave to *Adam*; and when loſt in the Corruption of the old World, reſtor'd it again by Revelation to *Abraham*, who taught it his Son *Iſmael* *His crafty way of inſinuating the ſame.*

Iſmael their Fore-father; and that he, when he firſt planted himſelf in *Arabia*, inſtructed Men in the ſame *Religion* which he had receiv'd from *Abraham*. But their *Poſterity* afterwards corrupted it into *Idolatry*, and therefore God had now ſent him to deſtroy this *Idolatry*, and again to reſtore the *Religion* of their *Patriarch Iſmael*. Therefore according to his own Account, the *Jews* do not improperly call his pretended *Religion Iſmaeliſm*.

He pretends Revelations from God by the Angel Gabriel.

HE pretended to receive all his *Revelations* from the *Angel Gabriel*, and that he was ſent on purpoſe from God to deliver them unto him. And whereas he was ſubject to the *Falling-Sickneſs*, whenever the *Fit* was upon him, he ſaid it was a *Trance*, and that then the ſaid *Angel Gabriel* was come from *God*, with ſome *new Revelations* to him, the *Splendor* of whoſe Appearance he could not bear, and ſo was the Cauſe of thoſe *Trances*.

His chief Arguments to ſeduce Men.

THE main *Arguments* by which he deluded Men into his *Impoſture*, were his *Promiſes* and *Threats*, as being thoſe which eaſieſt work on the Affections of the Vulgar. His Promiſes were chiefly of a *ſenſual Paradiſe*, which he ſo cunningly fram'd as to make it conſiſt and abound with all thoſe *Pleaſures* and *Delights*, which were moſt deſirable and beſt ſuited the *Guſt* of the *Arabians:* Such as *Women* ever young and moſt beautiful; pleaſant *Rivers* and *Streams* of Water, *cooling* Drinks, *ſhaded* Gardens, *delicious* Fruits, with an *eternal Enjoyment* of all other Pleaſures that enamour and tranſport the *Senſes*. And with the ſame kind of *Subtlety* he form'd the Notion of *Hell*, conſiſting of ſuch *Puniſhments* as appear'd to them moſt *afflicting* and *grievous* to be born; and which he threaten'd to all who would not believe in him. And ſuch *Torments* were, drinking nothing but *boiling* and *ſtinking* Water; breathing nothing but *exceeding hot* and *ſcorching Air*; dwelling for ever in *continual Fire*, and ſurrounded with *black*, *hot and ſalt Smoak*, as with a *Coverlid*; that they ſhould eat nothing but *Briars* and *Thorns*, and the Fruit of the Tree *Zacon*, which ſhould be in their Bellies like *burning Pitch*, and ſuch like things. Now ſuch an *Heaven* and *Hell*, as is here deſcrib'd, could not fail of *alluring* and *terrifying* an *ignorant ſenſual* People, living in the *hot* or *torrid Zone*.

His Paradiſe, or Heaven deſcrib'd.

His Hell, or Puniſhments he threatned.

To

To theſe *Motives* he added (that nothing might be wanting) the Threats of grievous *Puniſhments* and *Judgments* in this Life, as well as in the *future*, if they would not hearken to him: And to this End ſet forth to them on all Occaſions, what terrible Deſtructions had fallen upon the Heads of ſuch as would not be inſtructed by the Prophets ſent before: How the *old World* was delug'd, *Sodom* deſtroy'd by Fire, the *Egyptians* plagued and drowned, for *Contempt* and *Diſobedience* to *Noah*, *Lot* and *Moſes*: And how *Ad* and *Thamod*, two ancient *Tribes* of the *Arabians*, (as he on purpoſe *feigned*) were totally *extirpated* for the ſame Reaſon.

He threatens temporal Judgments to the Diſobedient.

BUT that which gravell'd him moſt was, that his Oppoſers demanded to ſee a *Miracle* from him: For ſaid they, *Moſes*, *Jeſus*, and the other *Prophets*, by your own Confeſſion, work'd Miracles to prove their *Miſſion* from God; and therefore if thou art a *Prophet*, and *greater* than they, as thou boaſteſt thyſelf to be, do thou work the like *Miracles* to manifeſt it to us: Raiſe the Dead, cauſe the *Dumb* to ſpeak, the *Deaf* to hear, *&c.* This Objection he endeavour'd to anſwer or to evade divers ways; but his moſt conſiderable *Reply* was, that their Predeceſſors had contemned the Miracles of *Saleh*, and the other *Prophets*, and that for this Reaſon God would work no more among them. But none of his Reaſons being ſatisfactory, many of his Followers departed from him. And therefore finding his *Sophiſtry* too weak, he retiring to *Medina*, another City of *Arabia*, took the *Sword* in Hand, and having gotten an *Army* to back his Cauſe, began to ſing another Note. For then he pretended that ſince God had ſent *Moſes* and *Jeſus* with *Miracles*, and yet Men would not be *obedient* to their Word, he had now ſent him, in the laſt Place, without *Miracles*, to *force* them by the Power of the Sword to do his Will. And purſuant thereto he forbad his *Diſciples* to enter into any farther Diſputes about his *Religion*, commanded them to deſtroy all who oppoſed it, promis'd them great Rewards for it in *Heaven*, and that thoſe who died in the Cauſe ſhould have a Crown of *Martyrdom*.

He is gravelled with the Objection of his Inability to work Miracles.

He retiring to Medina, *takes the Sword, which he ſays muſt ſuffice inſtead of Miracles.*

HOWEVER, 'tis not to be deny'd but there are *Legendaries* which aſcribe abundance of *Miracles* to him:

Falſe Miracles aſcrib'd to him

him: As (1.) That he did cleave the Moon in two. (2.) That Trees went forth to meet him. (3.) That Water flow'd from between his *Fingers*. (4.) That the Stones ſaluted him. (5.) That he fed a great Company with a little Food. (6.) That a Beam groan'd at him. (7.) That a Camel complain'd to him. (8.) That a Shoulder of Mutton told him of its being poiſon'd; and ſeveral others too ridiculous for *Mahomet* himſelf, or his *Doctors* to own; who renounce them all, and acknowledge that he did not work any *Miracles*; but allege, that the Eloquence of the *Alcoran*, and the Excellency of its Doctrine, is inſtead of all *Miracles*, ſince it was compoſed by a Man who could *neither write nor read*.

Inſtead of Miracles he alleges the Alcoran.

The Accompliices of the Impoſtor in contriving the Alcoran.

BUT in anſwer to this, the *Chriſtian Doctors* (though they grant the *Alcoran* is the *Standard* of *Arabic Eloquence* and *Elegancy* of Language, yet) prove that *Abdia Ben Salon*, a *Perſian Jew*, was the chief Aſſiſtant to *Mahomet* in compoſing the *Alcoran*; for having been a *Rabbi* himſelf, he very well underſtood the *Jewiſh Religion* and *Learning*, and wrote all his pretended *Revelations* for him for the ten firſt Years, and therefore no doubt he was a principal Contriver in the *forging* of them. He was likewiſe aſſiſted by a *Chriſtian Monk*, one *Sergius*, (in *Arabic*, *Bahira*) a *Neſtorian*, in what relates to *Chriſtianity*; who being excommunicated and expell'd his *Monaſtery* for a great Crime, for ſhame retir'd to *Mecca*, and was entertain'd by *Mahomet* as before ſaid. For the *Heatheniſh* Rites of the *Arabs*, *Mahomet* underſtood them well enough himſelf: But the Story of his *teaching* a *Bull* to bring him the *Alcoran* on his *Horns*, and breeding *Pigeons* to come to his Ears to make them believe it was the *Holy Ghoſt*, the *Chriſtian Doctors* now reject as fabulous.

The Meſra, or his Night-Journey to Heaven.

IN the twelfth Year of his pretended *Miſſion* is placed the *Meſra*, that is, his famous Night-Journey from *Mecca* to *Jeruſalem*, and from thence to *Heaven*; which was thus. At Night being in Bed with his Wife *Ageſha*, he heard a knocking at his Door; whereon ariſing, he found there the *Angel Gabriel* with ſeventy Pair of Wings expanded, whiter than Snow, and clearer than *Cryſtal*, and the Beaſt *Alborak* ſtanding by him, on which they ſay the *Prophets* uſed

to

to be carried from Place to Place, upon the Execution of any divine Command.

On the Alborak.

Mahomet deſcribes this Beaſt *Alborak* as white as Milk, of a mixt Nature and Size, between an *Aſs* and a *Mule*, and as ſwift as *Lightning*, from whence it hath its Name.

Gabriel *the Angel ſent to conduct him.*

Gabriel with a pleaſant Countenance in the Name of God ſalutes *Mahomet* at the Door, and tells him he was ſent to bring him to *God* into *Heaven*, where he ſhould ſee ſtrange Myſteries, not lawful to be ſeen by any other, and bid him mount the *Alborak*. But the Beaſt being wanton and skittiſh with *Idleneſs* (having reſted from the Time of Chriſt till now) would not ſtand ſtill for *Mahomet* to ſtride him, till he had firſt ſooth'd him by promiſing him a Place in *Paradiſe* : But by this Means quietly mounting, the Angel *Gabriel* leading the Way with the Bridle in his Hand, he was convey'd from *Mecca* to *Jeruſalem* in an Inſtant of Time.

He bribes the Alborak to ſtand ſtill.

His Arrival at Jeruſalem.

On his Arrival all the departed *Prophets* and *Saints* appeared at the Gate of the Temple and ſaluted him, and attending him into the chief Oratory, deſired him to pray for them, and then departed : Whereupon, going out of the Temple, they found a *Ladder of Light* ready fix'd for them, which they aſcended, leaving the *Alborak* there tied to a Rock till their Return.

They arrive at the firſt Heaven ; what he ſaw there.

On their Arrival at the *firſt Heaven*, upon *Gabriel*'s knocking at the Gate and informing the *Porter* who was there, the Gates of prodigious Largeneſs immediately opened. This *firſt Heaven*, he ſays, was all of *pure Silver*, and that the Stars hung from it by *Chains of Gold*, each being as big as Mount *Noho* near *Mecca*. Alſo that here he ſaw a *decrepid old Man*, who proved to be our firſt *Father Adam*, who ſaluting him, gave God thanks for ſo *great a Son*, and then commended himſelf to his Prayers.

His Deſcription of a wonderful Cock.

He tells us alſo he here ſaw a Multitude of *Angels* in all manner of Shapes, *viz.* of *Men*, *Beaſts*, and *Birds* of all Sorts ; and among the latter he ſaw a *Cock*, white as Snow, of ſo prodigious a Bigneſs, that his Feet ſtanding on the *firſt Heaven*, his Head reach'd up to the *ſecond*, which was at the Diſtance of five hundred Years Journey. Others ſay his Head reached

ed through all the *ſeven Heaven* as far as the Throne of God, which is above ſeven times higher.

Farther deſcrib'd.

THIS Cock, ſay they, hath his Wings all over decked with *Carbuncles* and *Pearls*, and extended *Eaſt* and *Weſt* at a Diſtance anſwerable to his *Height*: That he is the chief Angel of the Cocks; and that every Morning *God* ſinging an Hymn, this Cock conſtantly join'd him by Crowing, which is ſo loud, that all (except *Men* and *Fairies*) hear it in Heaven and in Earth, and then all other Cocks which are in Heaven and Earth crow alſo. The *Mahometans* ſay, the Voice of one conſtantly reading in the *Alcoran*, of him who early each Morning prays for *Pardon* of Sins, and the Voice of this Cock, are three Voices which God always hears. All this Stuff about the Cock aroſe from the Fables of the *Talmud*.

They arrive at the ſecond Heaven; and what they ſaw there.

FROM the firſt Heaven the Impoſtor tells us he aſcended to the Second at the Diſtance of five hundred Years Journey above it, (which was the Diſtance of each of the Seven above the other.) This Heaven he ſays was of *pure Gold*; here he ſaw *Noah*, who congratulated him, and recommended himſelf to his Prayers. Here alſo he ſays he ſaw twice as many Angels as before, and among them one who ſtanding on the *ſecond*, his Head reach'd to the *third Heaven*.

They arrive at the third Heaven; and what they ſaw there.

FROM thence he aſcended to the *third Heaven*, made of *precious Stones*, where at the Entrance he met *Abraham*, who deſired the Favour of his Prayers. And here he ſaw many more Angels than the former, and one of ſo prodigious a Size, that the Diſtance between his two Eyes was *ſeventy Thouſand* Days Journey (according to our rate of Travelling.) This the Angel *Gabriel* told him was the *Angel of Death*; for before him was a large Table, wherein he wrote the Names of Perſons that are to be born, computes the Days of their Life, which when they have compleated he blots them out, and then thoſe Perſons die.

They arrive at the fourth Heaven; what they ſaw there.

FROM hence he aſcended up to the *fourth Heaven*, which was all of *Emerald*; where at the *Entrance* he met *Joſeph* the Son of *Jacob*, who deſired a Share in his Prayers alſo. Here were ſtill more Angels than in the preceding Heaven, one of which alſo reach'd from this to the *fifth Heaven*, who was continually *weeping* and *lamenting*, which *Gabriel* told him was

for

for the *Sins of Men*, and their Deſtruction conſequent thereupon.

FROM hence he aſcended up to the *fifth Heaven*, which was made of *Adamant*, where he found *Moſes*, who recommended himſelf to his Prayers, and there alſo ſaw a much greater Number of *Angels* than in the former *Heaven*. *They aſcend to the fifth Heaven.*

FROM hence he aſcended to the *ſixth Heaven*, which was of *Carbuncle*, where he met with *John the Baptiſt*, who committed himſelf to his Prayers alſo. Here likewiſe were more *Angels* than in the former Heaven. *To the ſixth Heaven.*

FROM hence he aſcended to the *ſeventh Heaven*, which was all made of divine Light; and here he found *Jeſus Chriſt*, to whom (now) *Mahomet* recommends himſelf, and deſired Chriſt to pray for him. By this he acknowledg'd Chriſt to be the greater, to flatter and pleaſe the *Chriſtians*. Here he ſaid he found a much greater Number of *Angels* than in all the other Heavens together; among which was one extraordinary Angel having *ſeventy Thouſand Heads*, and in every Head ſo many *Tongues*, and every Tongue uttering ſo many *diſtinct Voices* at once, with which he continued Day and Night inceſſantly praiſing God. *To the ſeventh Heaven; and what they ſaw there.*

THE *Angel Gabriel* having brought him thus far, told him, That it was not permitted him to go any farther, and therefore directed him to aſcend up the reſt of the Way to the *Throne* of God by himſelf; which he perform'd with Difficulty, paſſing through Waters and Snow, *&c.* till he came where he heard a Voice ſaying to him, *O Mahomet, ſalute thy Creator*; from whence aſcending higher, he came to a Place of a vaſt *Extenſion* of *Light*, of ſuch Brightneſs as could not be endured, and this was the *Habitation* of the *Almighty*, where his Throne was placed; on the *right Side* of which he ſays there were written theſe *Arabic* Words, *La ellah elallah Mohammed Reſul ollah*, i. e. There is no God *but God*, and *Mahomet is his Prophet*. This is the *Mahometan Creed*, and which he ſays was written on all the Gates of the ſeven Heavens. *The Angel* Gabriel *leaves him, and he aſcends to the Throne of God by himſelf.* *The Abode of God.*

BUT approaching the *Preſence* of God within two *Bow-ſhots* he ſays, he ſaw him ſitting on his *Throne* with a Covering of *ſeventy Thouſand Veils* before his Face: *He is admitted to approach and converſe with God.*

Face: That God put forth his Hand, as a Token of his Favour, and laid it upon him, which was of that exceeding Coldneſs, that it pierced the very Marrow of his Back, and he could not bear it: That after this, God converſed familiarly with him, reveal'd to him a great many *hidden Myſteries*, and made him underſtand *his whole Law*; and gave him many things in Charge concerning his inſtructing Men in the Knowledge of it; and in concluſion, gave him *ſeveral Privileges* above the reſt of *Mankind*. And then being *diſmiſs'd*, he return'd to the *Angel Gabriel*, who reconducted him through all the *ſeven Heavens*, and ſat him on the *Alborak*, which he left tied at *Jeruſalem*, and from thence with the Bridle in his Hand conducted him to *Mecca*; and all this in the Space of one tenth Part of a Night.

He's diſmiſſed, and reconducted to Mecca.

HIS relating this *extravagant and ridiculous Fiction* the next Morning expoſed him to great *Deriſion* and *Contempt*; and many of his Diſciples, aſhamed of him as an *abominable Lyar*, left him in *Indignation*. And many more had done ſo, had not *Abu Beker*, a *Partner* in the Cheat, put a Stop to the *Defection*, by his avouching and pretending to believe the Truth of all *Mahomet's Jargon*, ſtolen from *Talmudical Fables*.

The Relation hereof expoſes him to Contempt.

THE *Impoſture* being conſtantly attended with *Contentions*, *Inſurrections* and *Male-practices*, which it occaſion'd in *Mecca* and other Cities of *Arabia*, the Chiefs of *Mecca* reſolv'd at laſt to ſtrike at the Root, and prevent the further ſpreading of the *Miſchief* by cutting him off, who was the *Author* of it. But he having timely Notice thereof, fled ſecretly by Night with all that would follow him to *Medina*, another great City of *Arabia*; where he ſettled himſelf, and built a *Moſque* for the *Exerciſe* of his *new Religion*: And order'd all *Computations* of Time to be made henceforwards from his ſaid *Flight*; which therefore was the Beginning of the *Mahometan Æra*, called *Hegira*, which (in *Arabic*) ſignifies *the Flight*. It commences from *July* the 16th, *A. D.* 622.

They of Mecca *conſpire to cut him off.*

He is inform'd of it, and flies to Medina.

The Æra *of the Hegira, or Flight.*

THE *Impoſtor* having now obtain'd a Town at his Command, where to arm his *Party*, and head them with *Security*; after *Preaching* up his *Impoſture* for thirteen Years, reſolv'd now to take the Sword in Hand

The Impoſtor propagates his Religion with the Sword.

Hand and fight for it: And henceforth forbids all Manner of diſputing about his Religion; and makes it no leſs than *Death* for any one to contradict and oppoſe what he taught; commanding all to be ſlain with the Sword, that would not embrace it.

He recovering Mecca, *makes the Temple there the chief Place of his Worſhip.*

BUT having, by the Fortune of War, got Footing again at *Mecca*, and perceiving that his Followers ſtill bore a ſuperſtitious Veneration for the *Temple* there, he thought it his Intereſt to preſerve their *Temple* in its former Honour of being the *chief Place of Worſhip*, and therefore order'd his *Diſciples* to pray with their Faces towards *Mecca*, and ordain'd the *Temple* there the chief Place of *Worſhip*, to which they were ſtill to perform their *Pilgrimages*, as in former Times. And to magnify the *Temple*, and give greater *Honour* and *Reputation* thereto, the *Impoſtor* told them it was firſt built in Heaven for the *Angels* to worſhip in; that there *Adam* worſhip'd while in *Paradiſe*, (which they ſay is in Heaven,) but being caſt down from thence, he pray'd God that he might have ſuch a *Temple* in *Earth* as that was in *Heaven*; and that thereupon God ſent down the *Similitude* of that *Temple* in *Curtains of Light*, and pitch'd it at *Mecca*, where it now ſtands, which is, ſay they, exactly under the *Original* in *Heaven*; with much more of the like *fabulous Stuff*.

He is poiſon'd at Chaibar, *and dies in three Years after.*

IN the ſeventh Year of the *Hegira*, i. e. after his *Flight*, he led up his Army againſt *Chaibar*, an *Arabian* City, and entering the Town, took up his Quarters in the Houſe of one *Horeth*, a principal Inhabitant, whoſe Daughter *Zamath* dreſſing a *Shoulder of Mutton* for his Supper, *poiſon'd* it: For ſhe ſaid ſhe would make *Tryal* whether he were a *Prophet* or no: If he were a *Prophet*, he could certainly tell, ſaid ſhe, that the Meat was *poiſon'd*, and ſo would receive no Harm from it: If he were not a *Prophet*, ſhe thought ſhe ſhould do the World *great Service* in ridding it of ſo *cruel a Tyrant*, as ſhe ſaid. Now ſome ſay, the *Shoulder of Mutton* ſpoke to him, and told him it was *poiſon'd*. But alas! it ſeems it was too late to do him any good; for *Baſher*, one of his *Company*, eating greedily of it, fell down dead in the Place; and tho' *Mahomet* had not immediately the ſame Fate, becauſe not liking the *Taſte*, he ſpit out again what he had taken

saken into his Mouth, yet he let down enough to do his Buſineſs, for he was never well after this *Supper*, and at three Years End died of it in the City of *Medina*; he died on his *Birth Day*, being juſt ſixty-three Years old, in their *Computation*, which makes only ſixty-one of our Years. He was buried in the Earth, and not ſuſpended in an Iron *Coffin*, by means of *Loadſtones*, in the Air, as has been *fabulouſly* reported.

His Age and Burial.

THE *Alcoran*, or rather (as it ſhould be call'd) the *Coran*, is the Name of that Book which contains the *Mahometan* Laws and Doctrines; and ſignifies, the *Reading*, or that which ought to be *Read*; as we call our Bible, the *Scripture*, or *Writing*. The *Mahometan Bible*, or *Coran*, is divided into four Parts, and each of them into Chapters, and thoſe again into Verſes. The Chapters have ridiculous *Titles*, as the *Chapter of the Cow*, *of the Elephant*, *of the Emmet*, *of the Spider*, *of the Fly*, &c. And the whole is in ſuch a diſorderly and incoherent Method, that it is but one continued *Hodge-podge*. Yet have they ſuch a ſtupid *Veneration* for this Book, that 'tis Death for a *Jew* or *Chriſtian* to touch it, and even for a *Muſſulman* himſelf, (for ſo they call their pretended *true Believers*) if he touch it with *unwaſhed Hands*. They pretend God ſent it to the *Prophet Mahomet* by the *Angel Gabriel* writ on *Parchment* made of the Skin of the *Ram* which *Abraham* offered in Sacrifice inſtead of his Son *Iſaac*; with abundance of other ſuperſtitious and impious *Trumpery* concerning it, not worth rehearſing.

An Account of the Alcoran, or Mahometan *Bible.*

THE chief *Principles* of *Mahometaniſm* are as follow; (1.) They believe that God is but *One*, as well in *Perſon* as *Eſſence*. (2.) That *Mahomet* is his *Prophet*. (3.) That *Angels* are God's Miniſters, which execute his *Commands*; of whom the *Angel Gabriel* is Chief. (4.) They hold *Fate* and *abſolute Predeſtination*, which makes them fight *undauntedly*. (5.) They hold an *Heaven* and *Hell*, with ſuch *Rewards* and *Puniſhments* as have been juſt now deſcrib'd. (6.) They uſe *Circumciſion*, which they had from the *Jews*. (7.) Their Religion is to be *propagated* by the Power of the Sword only, for which Reaſon their *Imans*, or *Prieſts*, preach with a *drawn Sword* in their Hands. (8.) That

Some of the principal Doctrines and Tenets of the Mahometans.

That the *Muſſulmans* who kill *Unbelievers*, thereby merit *Paradiſe*. (9.) *Mahomet* forbad drinking Wine, Games of Chance, *&c.* leſt his Followers ſhould thereby quarrel, fall together by the Ears, and expoſe his *Religion* to *Hazard*. (10.) He allow'd both the *Old* and *New Teſtament*, and cites many Paſſages from each to prove and juſtify his pretended *Apoſtleſhip*. (11.) They hold many Things by *Oral Tradition*, which they pretend *Mahomet* receiv'd from the Mouth of God in the *Night Journey* before related. (12.) The *Muſſulmans* are allowed not only a *Plurality* of *Wives*, but to keep as many *Women Slaves* for their *Luſt* as they can afford to buy, and the Children of the latter are as *legitimate* as thoſe of the former: The *old Letcher*, *Mahomet* himſelf, having had fifteen or twenty Wives for his own Share. (13.) *Mahomet* forbid *Adultery* to his Followers, yet himſelf took the Wife of his Servant *Zayd*. (14.) If two Places of the *Coran diſagree* or be *contradictory*, they *revoke* one of them, or *diſannul* it. (15.) They hold the *Immortality* of the *Soul*. (16.) That the *Puniſhments* of the *Wicked* are not *eternal*. (17.) That the very *Devils* themſelves ſhall at laſt be *converted* by the Power of the *Coran*. Theſe, with innumerable other ſilly, falſe, and ridiculous *Tenets* and *Traditions*, make the *monſtrous* Bulk of *Mahometan Doctrines*, which 'tis amazing to think how even *Superſtition* itſelf could ſwallow. A Religion beſpeaking only an *illiterate Barbarian*, who could neither *Write* nor *Read*, for its Author; *fabulous Jews*, *idolatrous Pagans*, and *heretical Popiſh Chriſtians* for its *Votaries*; and the *Sword* and *Deſtruction* for the *Means* of its *Propagation*.

The Notes or Marks of an Impoſture from Dean Prideaux.

THE *Notes* and *Characters* inſeparable from an *Impoſture* are reckon'd by a learned Man as follow: (1.) That it muſt always have for its *End* ſome *carnal Intereſt*. (2.) That it can have none but *wicked Men* for its *Authors*. (3.) That both theſe muſt neceſſarily appear in the very *Contexture* of the *Impoſture* itſelf. (4.) That it can never be ſo framed, but that it will contain ſome *palpable Falſities*, which will diſcover the *Falſity* of all the reſt. (5.) That where-ever it is firſt propagated, it muſt be done by *Craft* and *Fraud*. (6.) That when entruſted with many

many *Conſpirators* it can never be long concealed. And, (7.) That it can never be *eſtabliſhed* without *Force* and *Violence*.

Now that all theſe muſt belong to *every Impoſture*, and all particularly did ſo to *Mahometaniſm*; and that none of them can be charged upon *Chriſtianity*, the aforeſaid *learned Dean* hath largely proved in his *Letter* to the *Deiſts* of the *preſent* Age.

Of PAGANISM; *or, The* DIVINITIES *of the* HEATHEN, *and the* WORSHIP *paid to them.*

ALTHOUGH the *great* and *awful Creator* of all Things had moſt legibly imprinted the *Characters* of *Deity* on all the wonderful Works of his Hands; and that thereby the inviſible Things of him from the *Creation* of the World are clearly ſeen, being underſtood by the Things that are made, *viz. his eternal Power and Godhead* or *Deity*; and in ſo clear a Manner that they who acknowledg'd it not muſt needs be without *Excuſe*; yet that when Men thus *infallibly* knew God, they neither glorified him as God, nor were thankful to him for his conſtant Bleſſings, but inſtead of this became *brutiſhly ſupine* and *vain* in their Imaginations, and their Hearts, through ſuch wretched Folly, was envelop'd in Ignorance, and darken'd like the Earth eclipſed from the Splendor of the Sun; and ſo perverſe, that they ſeem'd even not to like to retain God in their Knowledge: I ſay, that then God did *judicially* give them up to a *reprobate Mind*; in Conſequence of which they ſoon chang'd the Glory of the *uncorruptible God*, into an *Image* of *corruptible Man*, and of *Birds* and *four-footed Beaſts*, and *Reptiles*; and thus changing the true Worſhip of God into *lying* and *diabolical Deluſions*, they worſhipped and ſerved the *Creature* more than the *Creator*, who is over all, God, bleſſed for ever, *Amen*. And this is the true Original of all that *groſs Darkneſs* and *idolatrous Superſtition* which had overwhelm'd the World, and introduced ſuch a numberleſs Variety of *falſe and fabulous Deities* in the Beginning.

The true Original of Idolatry and Heathen Superſtitions plainly accounted for.

Rom. i.

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Rom. i.

Polytheiſm, what.

THE *Religion* (or rather the *Impiety*) of the *Pagans* or *Heathen Nations*, is properly call'd *Polytheiſm*, or the acknowledging a *Plurality of Gods*; for their Number was almoſt *infinite*. It is alſo call'd *Idolatry*, becauſe they worſhipped their *Divinities* by various Repreſentations, call'd *Idols* or *Images*.

Idolatry, what

Ninus, *the firſt Author of Idolatry.*

'TIS generally agreed, that *Ninus*, the firſt *Aſſyrian Monarch*, was the firſt *Contriver* and *Aſſertor* of *falſe Gods*; who, to render the *Name* and *Memory* of his Father *Belus* or *Nimrod* immortal, procured a *Statue* of him to be curiouſly made, and paid *divine Honour* and *Reverence* thereto, and commanded the *Babylonians*, his Subjects, to do the ſame: and to induce them the eaſier, he made it a *Sanctuary* for the *Guilty* and *Miſerable* to fly to, and be ſafe.

The firſt falſe Deity, Bel, *or* Baal, *or* Jupiter.

THIS Statue, or Idol of *Ninus*, which repreſented his Father *Belus*, was in Time call'd *Bel*, and afterwards *Baal:* And this being a general Name for *Lords* and *Rulers*, it imports among the Heathen the ſame as the ſacred Names of *Jehovah* and *Adonai* in the Scriptures, *i. e. Sovercign Lord*; at length this *Appellation* was chang'd among the *Greeks* for that of *Jupiter* or *Jove*. So that *Jehovah*, *Baal*, and *Jupiter*, all ſignify the ſame Thing, only the firſt is ſacred and truly applied; the other *prophane*, and wrongly applied to *Idols*.

Babylonians *and* Aſſyrians *the firſt Idolaters.*

IF then *Ninus* was the firſt *Idolater*, and *Bel* or *Baal* the firſt Idol, 'tis evident the *Babylonians* and *Aſſyrians* were the firſt *People* and *Nation* who fell off from the *Worſhip* of the true God to *Idolatry* and *Polytheiſm*; from whence the dire *Contagion* ſoon ſpread over the neighbouring *Nations*, and totally infected the *Phœnicians*, *Egyptians*, *Ethiopians*, *Syrians*, *Perſians*, *Grecians*, *Indians*, &c. far and near, who have ever ſince been *prone* and *ſtrenuouſly addicted* to theſe kinds of *Superſtitions*.

Every thing in time became deified.

THE Nations of the World having thus loſt the Knowledge of the true God, and abandon'd themſelves to follow the uncertain Conduct of their *confounded Reaſon*, and the *wild Vagaries* of *Minds* and *Judgments judicially blinded*, they quickly ſhew'd their deprav'd Natures in the ridiculous and ſenſeleſs Choice they made of their *Gods* and *Divinities*; and the

ſtrange

ſtrange Deficiency of their Reaſon in the confus'd and endleſs Variety of them: There being nothing in the *Heavens* or the *Earth*, whether *good* or *bad*, that Men could ſee or be ſenſible of, but that ſome People or another had ſurely deified it.

The ſeveral Species of Idolatry.

BUT to be more particular, the *Species* of *Idolatry* may be reckon'd as follow, (1.) The Worſhip of *Angels*, and *Spirits*, or *pure* and *abſtracted Intelligences*, whom they made to preſide over *Kingdoms* and *People*, and in Scripture they are call'd *Elohim* or Gods, *ſtrange Gods*, *other Gods*, the *Gods of the Heathen*, &c. of which ſee *Exod.* xviii. 11. xxii. 19. 2 *Kings* xvii. 7. (2.) The Worſhip of the *Heavenly Bodies*, the Sun, Moon and Stars; this in Scripture is called worſhipping the *Hoſt of Heaven*; they imagining *great Virtue* and *benign Influences* to be derived from them to the Earth and all things on it. (3.) The Worſhip of *Idols* or *Images* of various *Forms* and *Shapes*, as of *Men*, *Beaſts*, *Birds*, *Fiſhes*, &c. and this of all others is moſt univerſal, and what is moſt properly call'd Idolatry. (4.) The Worſhip of *Animals* themſelves: As *Lions*, *Horſes*, *Oxen*, *Sheep*, *Swine*, *Goats*, *Dogs*, *Cats*, *Mice*, *Spiders*, &c. amongſt Beaſts: The *Eagle*, *Ibis*, *Phœnix*, *Hawks*, &c. among Birds; and the *Whale* and other Fiſhes; with the *Serpentes* of all kinds; and *Shell-Animals*; as may be ſeen in Hiſtory. (5.) The Worſhip of *inanimate Things*; as Fire, Water, Air, the Winds, the Earth; alſo all kinds of *Plants* and *Herbs*, *Stones*, &c. (6.) They alſo worſhipped things which were not Subſtances, but mere *Modes* and *Accidents* of Things; as *Life*, *Death*, Paſſions of *Love*, *Fear*, *Envy*, *Anger*, &c. *Diſeaſes*, as the *Fever*; alſo *Health*, *Honour*, &c. the *Virtues*, as *Virtue*, *Faith*, *Hope*, *Juſtice*, *Piety*, *Mercy*, *Chaſtity*, &c. Alſo *Truth*, the *Mind*, *Peace*, *Money*, *Mirth*; yea *Impudence*, *Calumny*, *Fraud*, *Fury*, *Diſcord*, *Fame*, *Fortune*, *Silence*, &c. were all eſtem'd *Deities*, and had *Temples* built for their Worſhip. (7.) Another kind of *Idolatry* is the paying *divine Honours* to *Kings*, *Heroes*, &c. who have fought Battles ſucceſsfully, and done many great *Exploits*; ſuppoſing ſuch *great Perſons* have ſomewhat in them more than *Human*; therefore make their Images and bow down to them as *Demi-*

Firſt Species.

Second Species.

Third Species.

Fourth Species

Fifth Species.

Sixth Species.

Seventh Species.

gods. Thus the Emperors of *Perſia*, *India*, and *China*, are worſhip'd at this Day. (8.) The laſt, and moſt ſtrange kind of *Idolatry*, is the *worſhipping* of *Devils*, and *evil Spirits*, which are call'd *Cacodæmons*; for they ſay, God is good and will not hurt them, therefore they need not pray to him on that Account; but, ſay they, the *Devil* and *wicked Spirits* in the Air, as they are inclin'd, and have a Power to do *Miſchief*, ſo they undoubtedly will, if they do not *honour* them with their *Prayers* and *Sacrifices*, not to do it. And ſuch *diabolical Adorations* are very frequent at this Day in the *Indies* and other Parts of the Heathen World.

Eighth Species.

The Heathen Deities rang'd into proper Claſſes.

THE moſt convenient Diviſion of the *Gods* and *Goddeſſes* of the Heathen is according to their ſeveral Degrees of *Dignity* and *Superiority* allow'd them; of which we have the following Claſſes. (1.) The *Celeſtial* Gods and Goddeſſes. (2.) The *Terreſtrial Deities.* (3.) The *Marine* and *River* Gods. (4.) The *Infernal* Gods. (5.) The *Subordinate* and *Miſcellaneous Deities.* (6.) The *Adſcriptitious Gods*, *Demi-Gods* and *Heroes.* (7.) *Modal Deities.* Of which a few things in Order.

The celeſtial Gods and Goddeſſes.

THE *celeſtial* or *ſuperior* Gods are theſe *Five*, viz. *Jupiter*, *Apollo*, *Mars*, *Mercury* and *Bacchus.* The *celeſtial Goddeſſes* are theſe *Five*, viz. *Juno*, *Minerva* or *Pallas*, *Venus*, *Latona*, and *Aurora.*

Jupiter.

JUPITER, the *moſt high* of all the *Heathen Divinities*, is ſaid to be the Son of *Saturn* and *Ops*; was born at the ſame Birth with his Wife *Juno*, and educated in Mount *Ida* in *Crete*, becauſe his Father *Saturn* ſought to devour him: But being grown, he depos'd and baniſh'd his Father, and divided the Kingdom of the World between himſelf and his Brethren *Pluto* and *Neptune.* The *Juriſdiction* of the *Sea* he gave to *Neptune*; *Pluto* was ſent to rule in *Hell*; but reſerv'd to himſelf the *Sovereignty* of *Heaven* and *Earth.* He was eſteem'd the moſt *beneficent Deity*, and was therefore call'd *the Father of the Gods and Men.* He overcame the *Giants* and the *Titans* in Battle; with other great Exploits recorded of him. He committed abundance of *Inceſt*, *Adultery*, and *Lewdneſs* of all kinds, in various Shapes. *(A fine Character of a God!)* Almoſt every Nation had its

Jupiter:

Jupiter: Varro reckon'd three hundred *Jupiters*, as a Part of the thirty thouſand Gods own'd by the *Heathen*. In the *Pantheon* he ſits upon a Throne of *Ivory* and *Gold*, under a *rich Canopy*, with a *Beard*, holding *Thunder-bolts* in his *Right-hand*, and a *Scepter* of *Cypreſs* in his Left, with an *Eagle* on the Top; is inveſted with an embroider'd *Cloak*, and *Golden Shoes*.

APOLLO was the next principal *Deity* of the firſt Rank: He was the Son of *Jupiter* and *Latona*; born in the Iſland *Delos*, and at the ſame Birth with *Diana*. He was the God whom they made to preſide over *Muſic*, *Phyſic*, *Poetry*, and *Prophecy* or *Divination*, as alſo the *Chace*. He was always repreſented as a young and beardleſs Youth. He kill'd the Serpent *Python*, and afterwards the *Cyclops*; he flea'd *Marſyas* the *Fiddler* alive for challenging him at *Muſic*; with *Neptune*'s Help he built the Walls of *Troy* for King *Laomedon*: Being degraded, he kept *Admetus* the King of *Theſſaly*'s Cattle. He turn'd *Daphne*, whom he loved, into a *Laurel*; and his Boy *Hyacinth* into a *Violet*. He had a famous *Temple* and *Oracle* at *Delphos*. He was alſo call'd *Phœbus*, *Sol*, *Horus*, &c. His Image was a *graceful* and *comely Youth*, with long Hair, a *Laurel-Crown*, Garments *embroider'd* with *Gold*, holding a Bow and Arrow in one Hand, and an *Harp* in the other. Apollo.

MARS is the next *celeſtial Divinity* with the *Heathen*; Son of *Jupiter* and *Juno*, or as *Ovid* ſays, of *Juno* alone; who conceiv'd him at the *Smell* of a *Flower*, ſhew'd her by the *Goddeſs Flora*. He was reputed the *God* of *War* and *Armies*, as his Siſter *Bellona* was the Goddeſs thereof. He lay with *Venus*, the Wife of *Vulcan*, who at laſt contrived to catch them together in an *Iron Net*, as he accordingly did, and thus expoſed them naked to the *Laughter* and *Diverſion* of the *Gods*. He was repreſented riding in an high *Chariot*, drawn by two furious Horſes call'd *Fear* and *Terror*, driven by his Siſter *Bellona*; he was cover'd with *Armour*, and holds a *Spear* in one Hand, and brandiſhes a *Sword* in the other, as though he breath'd *Fire* and *Death*, and threatned every Body with *Ruin* and *Deſtruction*. Mars.

Mercury. *MERCURY* was the Son of *Jupiter* and *Maia*; he was reputed the God of *Eloquence* and *Merchandiſe*; he was ſuppos'd the *Meſſenger* and *Interpreter* of the Gods; and therefore he had Wings on his Head and Heels; and a *Caduceus* in his Hand, which is a Rod with two *Serpents* twiſted round it, in token of *Peace* and *Amity*. He was alſo look'd upon as the God of *Thieves*, and the *Arbiter* of *Peace*. He guarded the Ways and conducted the deceaſed Souls to Hell. The *Egyptians* call him *Anubis*. The Inventions of the Lute, the Harp, the Exerciſe of *Wreſtling*, &c. are aſcrib'd to him. And 'tis probably thought the famous *Triſmegiſtus* in antient Times was the Original of this *Deity*.

Bacchus. *BACCHUS* was the God they moſt delighted in, though he was their *greateſt Shame*. He was the Son of *Jupiter* by *Semele*; he was look'd upon as the God of *Wine* and *Duunkenneſs*, and *Revelling*. He was crown'd with *Ivy* and *Vine-leaves*, held a Javelin encircled with the ſame, rode on a Chariot drawn ſometimes by *Lions* and *Tigers*, ſometimes by *Lynxes* and *Panthers*; preceded by a drunken Band of *Satyrs*, *Demons*, *Nymphs*, &c. *Silenus*, his Foſter-Father, often comes after him, ſitting on an Aſs that bends under his *Burthen*. He was repreſented naked, with a red Face, laſcivious Looks, in an effeminate Poſture, diſpirited with *Luxury*, and overcome with Wine.

Juno. Of the *celeſtial Goddeſſes*, *JUNO* is allow'd the *Pre-eminence*. She was Daughter of *Saturn* and *Ops* or *Cybele*; and *Siſter* and *Wife* to *Jupiter*. She was eſteem'd the *Goddeſs* of *Kingdoms* and *Riches*, and known by a *great Diverſity* of Names; and as moſt other Gods were referr'd to *Jupiter*, ſo almoſt all other Goddeſſes were incorporated in the Perſon of *Juno*. She was repreſented as a *majeſtical beautiful Woman*, riding in a *Golden Chariot*, drawn by *Peacocks*, wearing a *Scepter* in her Hand, and a *Crown* on her Head ſet about with *Roſes* and *Lillies*, and encircled around with fair *Iris* or the Rain-Bow. She was alſo judg'd to preſide over *Matrimony*, *Childbearing*, *Births*, and was the *guardian Angel* of Women; and therefore had many *Temples* and *Altars* erected in Honour of her.

MINER-

MINERVA or *PALLAS*, was (as 'tis ſaid) born of *Jupiter*'s Brain without a Mother; ſhe was the Goddeſs of *Wiſdom*, and all *Arts*; ſhe invented *Spinning*, *Weaving*, the *Uſe of Oil*, *making* and *colouring Cloth*, *Building*; ſhe refuſed to marry any of the Gods, and led a *Virgin Life:* Her *Statue* was of a ſtern and fierce Countenance, cloath'd with *Armour*, (as being the *Preſident* and *Inventreſs* of *War*) a glittering *Head-piece* of Gold, a *golden Breaſt-Plate*; a Lance in her Right-hand, and a terrible Shield (with the Head of *Meduſa*) in her Left. A fighting Cock ſtood by her; and an *Owl*, as an *Emblem* of *Sagacity*, becauſe it ſeeth in the Dark. There were alſo many *Minerva's* as well as *Joves* and *Juno's*. Minerva *or* Pallas.

VENUS was the Goddeſs of *Love* and *Beauty*; ſhe ſprang from the *Froth* of the *Sea* ariſing from the *Secrets* of *Cœlus*, which were cut off and thrown therein: As ſoon as born, ſhe was driven upon the *Iſland Cyprus*, where ſhe was educated, and afterwards being carried to Heaven, was married to *Vulcan*, whom ſhe ſoon cuckolded, with her *Gallant Mars*. Her Image was moſt fair and beautiful, view'd itſelf with a ſoft and becoming Pride; was cloathed with a *purple Mantle*, glittering with *Diamonds*, with two *Cupids* on her Side, the Graces round her, with the charming *Adonis* holding up her *Train*. Her Chariot was of Ivory, drawn by *Swans*, *Doves*, or *Swallows*, as ſhe directed. Venus.

LATONA was the Daughter of *Phœbe* and *Cœus* the *Titan*, the Wife of *Jupiter*, and Mother of *Apollo* and *Diana*. She brought forth her Twins in the Iſle *Delos*, which before was ſaid to ſwim in the Sea, but by *Neptune*'s Order became fix'd and immoveable for *Latona*'s Purpoſe. Whilſt ſhe was big and wandring through the Fields of *Lycia*, being very thirſty ſhe attempted to drink of a *Spring* at the Bottom of a Valley, but the Country *Ruſtics* hinder'd her, and bid her depart; ſhe intreated, they obſtinately refus'd to admit it; whereupon in a Wrath ſhe curſing them, ſaid, *May ye always live in this Water!* Immediately they were turn'd into *Frogs*, and leap'd into the muddy Water, where they have ever after liv'd. Latona.

AURORA was the Daughter of *Terra* and *Titan*, the Siſter of *Sol* and *Luna*, and Mother of the Stars and Aurora.

and the Winds. She was the *Goddeſs* of the *Morning*. She was repreſented ſtanding in a *Chariot* of *ſhining Gold*, drawn by two *white flying Horſes*; her Countenance ſhone like Gold, her *Fingers* red like *Roſes*; crown'd with a Star, radiating Beams of *Light* and *Glory* all around her; in one Hand ſhe held the Reins, in the other a burning *Flambeau*. Such are the *Fables* and *poetical Fictions* concerning the *Celeſtial Deities*.

The Terreſtrial Gods and Goddeſſes.

THE *Terreſtrial Deities* (ſo call'd becauſe their Habitations are in the *Earth*,) are *Saturn*, *Janus*, *Vulcan*, *Æolus*, and *Momus*. The *Terreſtrial Goddeſſes* are principally *Veſta*, *Cybele*, *Ceres*, the *Muſes*, and *Themis* with her Siſters. To theſe *Terreſtrial Gods* there are alſo ſome peculiar to the *Countries* and the *Woods*, and are therefore call'd the *Gods of the Woods*, which will be afterwards deſcrib'd.

Saturn.

SATURN the Son of *Cœlum* and *Terra*; he married his Siſter *Ops*; his eldeſt Brother was *Titan*; and his Children, *Jupiter*, *Neptune*, *Pluto*, and their Siſter *Juno*. *Titan*, by the Perſuaſion of his Mother *Ops*, and Siſter *Cybele*, reſign'd his Right to the Kingdom of the World to his Brother *Saturn*, on Condition that he ſhould not ſuffer any of his Male Children to live; that the Empire of the World might devolve to his Poſterity after *Saturn*'s Death. Whereupon *Saturn* is ſaid to have devour'd all his Male Children. But his Wife *Ops* ſav'd *Jupiter*, by ſending him away, as alſo *Neptune* and *Pluto*; which when *Titan* afterwards came to hear of, he made War upon *Saturn*, and put him and his Wife in Priſon. At length *Jupiter* overcame *Titan*, and ſet them free: But *Saturn* being inform'd his Son *Jupiter* would deprive him of his Kingdom, endeavour'd to make him away; which when *Jupiter* underſtood, he baniſh'd his Father, and took on him the Sovereignty of the World. In his Days was the *Golden Age*. He was repreſented as a decrepit deform'd old Man, in whoſe *Left Hand* was a *Scythe* (which he was ſaid to invent,) and in his *Right* a Serpent biting his Tail. The Whole of which is a proper *Emblem* of *Time*.

Janus.

JANUS is ſaid to be the Son of *Cœlus* and *Hecate*: He was eſteem'd to preſide over the *Beginning* of all Buſineſs. He was repreſented with two Faces looking both ways at once. He ſits upon a Throne

before

before twelve Altars, as being the firſt Inſtitutor of *Altars*, *Temples*, and *Religious Rites*. He holds a *Key* in one Hand and a *Rod* in the other, as he was the *Guardian of the Ways*, and the Inventor of *Locks*, *Doors* and *Gates*. From him the Month *January* took its Name, as it ſtands between the Old and New Years, and beholds them both as it were with two Faces.

VULCAN was the Son of *Jupiter* and *Juno*, and yet notwithſtanding his *Deſcent* was ſo high, and himſelf a God, he was oblig'd to follow a Trade, and that of a *Blackſmith* too, poor God! For being contemptible on Account of his Deformity, he was caſt down from Heaven into the Iſle *Lemnos*; he broke his Leg with the Fall, and has ever ſince been *Lame*. Here he erected his Forge, and made *Thunderbolts* for his Father *Jupiter*, and *Armory* for the other Gods. His Servants were call'd *Cyclops*, becauſe they had but *one Eye*, which was in the Middle of their Foreheads, of a circular Figure. Their Names were *Brontes*, *Steropes*, and *Pyracmon*, and were born of *Neptune* and *Amphitrite*. Though *Vulcan* was ſo *naſty* and *deform'd*, he had the greateſt Beauty among all the *Divinities* to his Wife, *viz.* the Goddeſs *Venus*, who indeed cuckolded him, but that was no wonder. *Vulcan*, in ſhort, was the *God of Fire*, and preſided over *Metals*, and *Artificers* concern'd therewith. Vulcan. Cyclops.

ÆOLUS was the Son of *Jupiter* and *Aceſta*, or *Segeſta*; he was the *God of Winds*, which he kept under his Power confined in a *Cave* in one of the *Æolian* Iſlands where he dwelt; who therefore could ſet them at *Liberty*, raiſe *Storms* and *Hurricanes*, or otherwiſe could reſtrain their *Rage*, and cauſe perfect *Calms* by recalling the Winds and fettering them in their Priſons. Æolus.

MOMUS the Son of *Nox* and *Somnus*; he was (as his Name imports) a *Jeſter*, *Mocker*, or *Mimick*; his Life was idly ſpent in nicely obſerving the *Sayings* and *Actions* of the Gods; and then in cenſuring and deriding them, with the greateſt Freedom. For Inſtance, when *Neptune* had made a Bull, *Minerva* an Houſe, and *Vulcan* a Man, they made *Momus* Judge who had ſhewn the *greateſt Skill*; but he blamed them all: *Neptune*, for not placing the *Bull's-Horns* in his Momus.

Forehead

Forehead before his Eyes, that he might have puſh'd the ſurer: And *Minerva*, becauſe her Houſe was fix'd, and could not be carried away in caſe 'twas placed among bad Neighbours: But *Vulcan* he ſaid was moſt *imprudent*, becauſe he did not make a *Window* in the Man's Breaſt, whereby to view his *ſubtil* and *deſigning Thoughts*.

The Terreſtrial Goddeſſes.

THE *Terreſtrial Goddeſſes* are, (1.) *Veſta* the Wife of *Cœlum*, and Mother of *Saturn*; (for *Ops*, *Veſta*, and *Terra*, are all one *Goddeſs*.) She was the *Goddeſs* of *Nature*; in her Temple was a *perpetual Fire*, attended and kept alive by thoſe call'd the *Veſtal Virgins*; but 'tis ſaid by ſome this belong'd to another *Veſta*, always a *Virgin* herſelf, and Goddeſs of *Elemental Fire*. (2.) *Cybele* is the next, but by many is confounded with *Veſta*, alſo call'd *Rhea*, the *Goddeſs of the Earth*; and therefore was repreſented with Towers on her Head, ſitting on a *Chariot* drawn by *Lions*, and a great Number of *Trees* and *Animals* round about her. (3.) *Ceres* the Daughter of *Saturn* and *Ops*; the *Goddeſs* of *Corn* and *Tillage*. *Pluto* having ſtolen her Daughter *Proſerpina*, ſhe lighted two Torches at Mount *Ætna*, to ſeek after her through the World. Therefore her *Statue* holds a Torch in one Hand, and a Noſegay of Poppies in the other, to ſooth her Grief with Sleep. Her Head was beautified with Yellow Hair, and crown'd with a *Turban* compos'd of the Ears of Corn. (4.) The *Muſes*; they were Nine Virgins, the Daughters of *Jupiter* and *Mnemoſyne*: They were *Miſtreſſes* of the *Sciences*, and *Preſidents* of *Muſicians* and *Poets*. Their Names were *Calliope*, the Goddeſs of Rhetoric; *Clio*, of Hiſtory; *Erato*, of Amours and Poetry; *Thalia*, of Comedy; *Melpomene*, of Tragedy; *Terpſichore*, of Dancing and Balls; *Euterpe*, of Singing and Muſic; *Polyhymnia*, of Song and Hiſtory; and *Urania*, of Aſtronomy and Divinity. They were all call'd by ſeveral Names: As *Pierides*, *Heliconiades*, *Parnaſſides*, *Cytherides*, *Caſtalides*, and *Aganippides*. (5.) Laſtly, *Themis* with *Aſtræa* and *Nemeſis* conclude the Number of theſe *Deities*. *Themis* was born of *Cœlus* and *Terra*, and is the Goddeſs of *Right*. *Aſtræa* the Daughter of *Jove* and *Themis*, and Goddeſs of *Juſtice*. *Nemeſis* was the Daughter of *Jove* and *Neceſſitas*; and was the

Veſta.

Cybele.

Ceres.

The Muſes.

Their Names.

Themis, Aſtræa, *and* Nemeſis.

the Goddeſs that *rewarded Virtue* and *puniſhed Vice.*

THE *Sylveſtrian* and *Rural* Gods are reducible to the following Claſſes, *viz.* (1.) *Satyrs*, who were partly of *Human*, partly of *Beſtial Form*; for they had Heads of *human Shape*, but arm'd with Horns; they had *brutiſh* Ears; crooked Hands; rough hairy Bodies; *Goat's* Legs and Feet; and *Tails* not much ſhorter than Horſe-Tails. Nothing can be more ſalacious and libidinous than a *Satyr*. The principal of theſe filthy Monſters was the famous God *Pan*, who firſt invented the *Muſical Pipe*, and preſides over *Shepherds* and *Hunters*, the Mountains and Flocks thereon. Alſo *Sylvanus* the God of the *Woods*, and *Silenus* the God of *rural Jollity*, were two other remarkable *Satyrs*. (2.) The *Fauni* or *Fauns*; theſe differ only in *Name*, not in *Form*, from *Satyrs*. Theſe were properly the *Agreſtic Deities* or *Gods of the Fields*, whom the Country Boors had in great Veneration. (3.) *Priapus* was the Son of *Venus* and *Bacchus*, and therefore no wonder he was the moſt *impudent* and *obſcene Deity* that *Paganiſm* itſelf could produce: his Story is too filthy to relate, and ſhall therefore ſay no more of him. (4.) *Ariſtæus* and *Terminus* were two other *rural Deities*. *Ariſtæus* invented the Arts of making *Oil*, *Honey*, and *Cheeſe*; for which they paid him *Divine Honours*. *Terminus* (a mere Bound-Stone) was reckon'd a God, and that the *Boundaries* and *Limits* of Men's Land and Eſtates were under his *Protection*.

Gods of the Woods.
Satyrs.
Pan.
Sylvanus.
Silenus.
The Fauni.
Priapus.
Ariſtæus *and* Terminus.

THE *Rural* and *Sylvan Goddeſſes* were counted the following. (1.) *Diana*, (call'd *Luna* and *Hecate*) the Daughter of *Jupiter* by *Latona*, at the ſame Birth with *Apollo*; who out of love to *Chaſtity*, avoiding *Conſort* with Men, retired into the *Woods*, and there diverted herſelf with *hunting wild Beaſts*, carrying always a *Bow* and *Quiver*; Whence ſhe is reckon'd the *Goddeſs* of the *Woods* and the *Chace*. Alſo ſhe was ſuppoſed to be very helpful to Women in *Child-bearing*. (2.) *Pales* was eſteemed the *Goddeſs* of *Shepherds* and *Paſture*, and reckon'd the *Inventreſs* of *Corn*, &c. and was thought by ſome to be the ſame with *Ceres* or *Veſta*. (3.) *Flora* was the *Goddeſs* and *Preſident* of *Flowers*. But at firſt was only an *infamous ſhameleſs Strumpet*,

The Rural Goddeſſes.
Diana.
Pales.
Flora.

Strumpet, who by her vile Trade had heap'd up a great deal of *Money*, and made the People of *Rome* her *Heir*; who, in return, placed her among the *Divinities*, and honour'd her *Memory* with the moſt *lewd* and *diſhonourable* Actions and Practices on her *Birth-Day*.

Ferona *and* Pomona. (4.) *Ferona* and *Pomona* were two *Goddeſſes* of *Trees* and *Fruits*. The latter was adviſed to a State of *Matrimony* by the God *Vertumnus* in the Guiſe of an *hagged old Woman*, but to no Purpoſe; till turning himſelf into a *fair young Man*, he cauſed her ſoon to feel the Force and Power of Love, and ſhe readily ſubmitted to his Wiſhes.

Vertumnus.

Nymphs. (5.) The *Nymphs*; theſe were a *Company* of neat pretty charming Virgins, placed near the pleaſant Gardens of *Pomona*. They were of three ſorts, *viz.* 1. *Celeſtial*, call'd *Genii*, who guide the *Spheres*, and diſpenſe the Influences of the Stars to Things on Earth. 2. The *Terreſtrial Nymphs*, as *Dryades*, who preſided over the *Woods*, and liv'd in the *Oaks*; and *Hamadryades*, who are born and alſo die *with the Oak*. The *Oreades*, which preſided over the *Mountains*. The *Napææ*, which preſided over the *Groves* and *Valleys*. The *Limoniades*, over the *Meadows* and *Fields*. 3. The *Marine Nymphs*, of which by and by.

Genii.

Dryades.

Hamadryades.

Oreades.

Nepææ.

Limoniades.

The Marine Deities. THE third Claſs of *Heathen Deities*, are thoſe we call *Marine* and *River Gods* and *Goddeſſes*; the principal of which are the following.

Neptune. (1.) *Neptune*, the Son of *Saturn* and *Ops*, and Brother to *Jupiter* and *Pluto*; his Wife *Amphitrite*, Daughter of *Nereus*; and thoſe were the two chief Deities of the Sea: He was repreſented with black Hair and blue Eyes, arrayd in a Mantle of *Azure*, holding a *Trident* for his Scepter in his *Right Hand*, and embracing his Queen with his *Left*. He ſtands upright in his Chariot drawn by Sea Horſes, and attended by Nymphs, *&c.*

Amphitrite.

Proteus. (2.) *Proteus* was the Son of *Neptune*, ſay ſome; others ſay, of *Oceanus* and *Tethys*: His Buſineſs was to tend the *Sea Calves*; and was remarkable, for that he could turn himſelf into all Shapes.

Triton. (3.) *Triton*, the Son of *Neptune*, and was alſo his Trumpeter; his Shape was a *Man* to the *Middle*, a *Dolphin* below, and his two Fore-feet like Horſes, with two circled Tails.

Oceanus. (4.) *Oceanus* was the Son of *Cœlum* and *Veſta*, Husband to *Tethys*, God of the *Sea*, and Father

of

of the Rivers and Springs. (5.) *Nereus*, the Son of *Oceanus* and *Tethys*, and Father of fifty Daughters, call'd from him *Nereides*, or *Sea Nymphs*. (6.) *Palæmon* and his Mother *Ino*, together with the Fiſherman *Glaucus*, are reckon'd among the *Sea* Deities. (7.) The *Sirens:* Theſe were a kind of *Mermaids*, having the Faces of Women, but Bodies of *Flying Fiſh*. They were excellent Songſters that play'd on the *Sicilian* Coaſts, and tempted Paſſengers on Shore, where they ſang them aſleep, and then kill'd and robb'd them. (8.) *Scylla* and *Charybdis* were two other Sea Monſters; *Scylla* was the Daughter of *Phorcus*, belov'd by *Glaucus*; whom therefore the Witch *Circe* by her *Inchantments* turn'd into a *Rock*, with Dogs about her lower Parts. *Charybdis* was a very ravenous Woman, who ſtole away *Hercules*'s Oxen, for which Theft *Jupiter* ſtruck her dead with *Thunder*, and then turn'd her into a *Gulph*, or *Whirlpool* in the *Sicilian* Sea, and over-againſt *Scylla*. (9.) The Sea Nymphs were the *Nereides* aforeſaid. The *Naides* or *Naïades*, which preſide over Fountains and Springs. The *Potamides*, which preſide over Rivers; and *Limnades*, who preſide over Lakes.

Nereus.
Nereides,
Palæmon,
Ino *and*
Glaucus.
Sirens.
Scylla, *and*
Charybdis.
Watry Nymphs
Nereides.
Naiades.
Potamides.
Limnades.

WE are now come to the Claſs of *Infernal Deities*; but let us firſt take a curſory View of the gloomy Regions where they dwell, and over which they rule. The general Name thereof is *Hades* or *Tartarus*, both which ſignify what we call *Hell*. The Paſſage leading thereto was a wide dark *Cave*, through which you paſs by a *ſteep rocky Deſcent* till you arrive at a *gloomy Grove*, and an *unnavigable Lake* called *Avernus*, from whence ſuch *Poiſonous Vapours* ariſe as ſtrike Birds dead flying over it. Yet over this Lake the Souls of the Dead muſt paſs; to which End a naſty, old, decrepid, long-bearded Fellow, call'd *Charon*, attends with a *Ferry-Boat*, and carries them over to the other Side, after they have paid him his *Fare*, which is at leaſt an *Half-penny*.

A View of the Pagan *Hell.*
Hades *or* Tartarus.
The Lake Avernus.
Old Charon.

AFTER this there are four Rivers to be paſſed over, *viz.* (1.) *Acheron*, whoſe Waters are *extreme bitter*. (2.) The next they met with was *Styx*, a *Lake* rather than a *River*, and ſo ſacred to the Gods, that if any ſwore by it, and broke *his Oath*, he was depriv'd of his *Godhead*, and drank no *Nectar* for an hundred

The Rivers of Hell.
Acheron.
Styx.

Cocytus. hundred Years. (3.) The next was the *River Cocytus*, which flows out of *Styx* with a lamentable groaning Noiſe; and imitates the *Howling*, and increaſes the Exclamation of the *Damned*. (4.) The laſt is the River *Phlegethon*, ſo call'd becauſe it ſwells with *Waves of Fire*, and all its Streams are *Flames*.

Phlegethon.

The three-headed Dog Cerberus.

THE Souls having paſs'd theſe Rivers, are conducted to the Palace of *Pluto*; where the Gate is guarded by *Cerberus*, a Dog with *three Heads*; whoſe Body is cover'd with *Snakes* inſtead of Hair. This Dog is the *Porter* of *Hell*, begotten of *Echidna* by the Giant *Typhon*. We are now arrived to

Pluto *and* Proſerpina. *PLUTO* the *King of Hell*; the Son of *Saturn* and *Ops*, and Brother of *Jupiter* and *Neptune*. He obtain'd theſe *infernal Dominions* by Lot when his Father's Kingdom of all the World was divided as before related; and alſo becauſe he invented *Burying* and *funeral Obſequies* for the Dead. He ſat on a Throne cover'd with *Darkneſs*, holding a *Key* in his Hand, and crown'd with *Ebony*, and by him his *Queen Proſerpina*, whom he ſtole from *Ceres*, as before obſerv'd.

Plutus, *or* Mammon. SOME, from a Likeneſs in *Name* and *Office*, to *Pluto* join *Plutus* the *God of Riches* and *Wealth*, the Son of *Jaſon* by *Ceres*; he is the ſame *Deity* which in the *New Teſtament* is call'd *Mammon*. He was *blind* and *lame*, *injudicious* and very *timorous*.

Judges of Hell Minos, Æacus *and* Rhadamanthus. THE next *Miniſters* in the *Oeconomy* of *Hell* are the three Judges, *Minos*, *Æacus*, and *Rhadamanthus*; the two firſt were the Sons of *Jupiter* by *Europa*, the latter by *Ægina*. Theſe are believed to *judge the Souls of the Dead*. *Rhadamanthus* judg'd the *Aſiatics*, and *Æacus* the *Europeans*. But *Minos* holds a *Golden Scepter*, ſits alone, and ſuperintends the Judgments of the other two.

THE *Fates* come next to be obſerved: They are three *old Ladies*, array'd in Garments of *Ermine*, white as Snow, with a Purple Border. They are the Daughters of *Erebus* and *Nox*; the *Goddeſſes* of *Deſtiny*; their Names are *Clotho*, *Lacheſis*, and *Atropos*. Theſe order and manage the *fatal Thread* of *Life*. *Clotho* draws the Thread, *Lacheſis* turns the *Wheel*, and *Atropos* cuts it aſunder when ſpun to a due Length; then down we drop to *Ades* or *Hell*.

Clotho, Lacheſis, Atropos.

THE

THE *Furies* (call'd alſo *Eumenides*, *Diræ*, and *Canes*,) next preſent themſelves. They have *Faces* like *Women*, their Looks full of *Terror*, hold *lighted Torches* in their Hands, and *Snakes* and *Serpents* laſh their *Necks* and *Shoulders*. They are the *Daughters* of *Nox* and *Acheron*; their Names are *Alecto*, *Tiſiphone*, and *Megæra*; all call'd by one common Name *Erinnys*. Their Office is to puniſh the Crimes of wicked Men, and to torment and frighten them by following them with *ghaſtly Miens* and *burning Torches*. *The Furies of Hell.* Alecto, Tiſiphone, Megæra.

MOREOVER in theſe *infernal Regions* you meet with the moſt *antient Deities*, *Erebus*, and his Wife *Nox*, of whom *Mors* was born, and his Brother *Somnus*. *Erebus* and *Nox* preſide over *Darkneſs* and the *Night*; *Mors*, over *Death*; and *Somnus* is the *God of Sleep*, who by his Servant *Morpheus* ſends *Dreams* to us above while ſleeping. Erebus, Nox, Mors, Somnus, Morpheus.

IN Hell are alſo the following *Monſters*. (1.) The *Centaurs*; whoſe upper Parts were *Human*, but had the Body, Legs, &c. of an Horſe; begotten of a *Cloud* by *Ixion*, which he thought had been *Juno*. (2.) *Geryon*, who had *three Bodies*; he was ſlain by *Hercules*, who took away his *Cattle* alſo, though guarded by a *Dog* with *two Heads*, and a *Dragon* with *ſeven*. (3.) The *Harpyies* born of *Oceanus* and *Terra*; who had the *Faces* of *Virgins*, *Bodies* of *Birds*, and their Hands arm'd with *Claws*; their Names were *Aello*, *Ocypete* and *Celeno*. (4.) The *Gorgons*, *Meduſa*, *Stheno* and *Euryale*, who were Daughters of *Phorcus* and *Cete*; they had Heads cover'd with *Snakes* inſtead of *Hair*; which ſo terrified Beholders, that they immediately turn'd them to *Stones*. (5.) The *Lamiæ* and *Empuſæ*, who had but *one Eye*, and one Tooth common to them all. They had Faces, Necks and Breaſts like Women; but Bodies cover'd with *Scales*, and *Tails* of Serpents. (6.) The *Chimæra*, a Monſter vomiting Fire; he hath an Head and Breaſt of a Lion, the Belly of a Goat, and the Tail of a Dragon, and was ſlain by *Bellerophon*. (7.) The *Sphinx* begotten by *Typhon* and *Echidna*; had the Head and Face of a Virgin, Wings of a Bird, and Body and Feet of a Dog. Her Riddle was explain'd by *Oedipus*; at which being enraged, ſhe threw herſelf from a Rock and died. *The Monſters of Hell.* Centaurs. Geryon. Harpyies. Gorgons. Lamiæ *and* Empuſæ. Chimæra. Sphinx.

THE

The moſt famous of the Condemned in Hell.

THE moſt *famous* of the *Condemned* in Hell are the following. (1.) The *Giants*, Sons of *Cœlum* and *Terra*; they were very high in Stature, had horrible Dragons Feet, and their whole Mien full of Terror: They waged War againſt the *Celeſtial Gods* upon the *Phlegræan* Plains, but were overcome, and ſtruck down to Hell with *Jupiter*'s Thunderbolts and the *Arms* of the *Gods*. The Principal of which were *Typhon*, *Ægæon*, *Alœus*, and *Tityus*; and in order that they might not riſe again, the Iſland of *Sicily* was fix'd on *Typhon*, and Mount *Ætna* on *Ægæon*, which, when he heaves, caſteth forth Flames of Fire; and *Tityus*'s Doom was to have a Vultur always gnawing his Liver, which grows afreſh every Month. (2.) *Phlegias*, who, for firing *Apollo*'s Temple at *Delphi*, was ſentenced to have a great Stone hang over his Head, ready to fall each Moment to cruſh him to Pieces. (3.) *Ixion* his Son, who, for attempting to violate the Chaſtity of *Juno*, was ſtruck to Hell, and tied to a Wheel, which turns about continually. (4.) *Siſyphus*, a notorious Robber, who is condemn'd to roll a great Stone up to the Top of a Hill, which ever ſlides down again, and makes his Labour *perpetual*. (5.) The *Belides* were *Fifty Virgin Siſters*, Daughters of *Danaus*, who, by his Command, did all (but one) ſlay their Husbands on the Wedding Night; for which Impiety they were condemned to draw Water out of a deep Well, to fill a Tub whoſe Bottom was full of Holes like a *Sieve*. (6.) *Tantalus* invited the Gods to a Feaſt, and to prove their *Divinity*, he kill'd, boil'd, and ſerv'd up the Joints of his Son *Pelops* on the Table before them to eat: They abſtain'd from ſuch horrid Diet, and condemn'd *Tantalus* to ſtand in Water up to his Lips, which he could not drink; and to have Meat placed juſt at his Mouth, which yet he could not taſte; and was thus tormented and teazed with *eternal Hunger* and *Thirſt*.

The Giants.

Typhon,
Ægæon,
Alœus,
Tityus.

Phlegias.

Ixion.

Siſyphus.

The Belides.

Tantalus.

The Elyſium, *or Heathen Paradiſe.*

IN theſe *Tartarian Regions* is a Place abounding with all kind of *Pleaſures* and *Delights*, call'd *Elyſium*; becauſe thither the Souls of the *Good* come after they are *looſed* from the Chains of the Body. This is the *Heathen Paradiſe* of Delights conſiſting of moſt *pleaſant Plains*, the moſt *verdant Fields*, the *ſhadieſt Groves*, and the *fineſt* and moſt *temperate* Air that

can

can be produced. After the Souls of the Pious had ſpent many Ages in the *Elyſian* Fields, they drank the Water of the River *Lethe*, which made them forget all things paſt; and then return'd to the World again, and poſſeſs'd new Bodies. 'Twas neceſſary they ſhould forget the Pleaſures they enjoy'd in *Elyſium*, that they might willingly return again to this miſerable Life. *The River* Lethe.

THE Fifth Claſs of *Heathen Deities* were thoſe of a *Subordinate* and *Miſcellaneous* Nature. Such were, (1.) The *Penates*, a ſort of *Teraphim*; ſome of which preſided over Kingdoms and Provinces, others over Cities, and others over particular Houſes and Families. (2.) The *Lares*, who were the Children of *Mercury* and the Nymph *Lara*; theſe were another Sort of *Domeſtic Gods*, who preſided over Houſes, Streets, and Highways. They were ſometimes cloathed in the Skins of Dogs, and ſometimes faſhioned in the Shape of Hogs. (3.) The *Genii* were a ſort of *Demons*, whom they believed to preſide over the Births of Perſons, and attend them as *Guardian Angels* all their Lives. Thoſe which were proper to Women were call'd *Junones*. (4.) *Libitina*, the Chief of the *funeral Deities*. And beſides theſe, there were particular *Gods* and *Goddeſſes* allow'd to preſide over all the Actions of Life from the Cradle to the Grave. *Subordinate Gods.* Penates. Lares. Genii. Libitina.

THE Sixth Claſs were thoſe call'd *Demi-Gods* and *Heroes*, who were very numerous; as *Hercules*, *Theſeus*, *Perſeus*, *Æſculapius*, *Prometheus*, *Atlas*, *Orpheus* and *Amphion*, *Achilles*, *Ulyſſes*, *Orion*, *Caſtor* and *Pollux*, *Jaſon*; and a Multitude of others, of whom it were tedious to recount an *hundredth* Part of what is recorded of their *valiant Exploits*, and heroic and incredible Atchievements; which you may read at leiſure in the *Fabulous Poets*.

THE Seventh and laſt Claſs of *Heathen Deities* were thoſe I term'd *Modal Deities*; and are the ſame as mention'd under the *ſixth Species* of *Idolatry* beforegoing, of which I ſhall ſay no more.

THE Temple which the *Romans* built, and therein placed the Images of all the *Gods* and *Goddeſſes*, was called the *Pantheon*, or *Temple of all the Gods*; which when it came into the Hands of *Chriſtians*, *The* Pantheon.

Pope *Boniface* III. dedicated to the Virgin *Mary* and *All Saints*; which was analogous to its former *Uſe* and *Honour*. But this is only *one Thing* in which the Papiſts *heathenize*, amongſt many others.

The Meat and Drink of the Gods, Ambroſia *and* Nectar.

THO' the *Pagans* had ſuch a *Multiplicity* of *Deities*, not one of them could live without *Eating* and *Drinking*; but to ſolve this, they artfully found out a Food call'd *Ambroſia*, and a Drink call'd *Nectar*; both which, beſides the moſt ſweet and delicious *Taſte* and *Flavour*, had the Property of communicating Immortality: With theſe therefore they had the good Manners to feed their *Gods*; and by this means, of *mortal Men* they made what Number of *immortal Deities* they pleas'd; the Chief of which are thoſe we now diſcours'd of.

Of the Heathen Feſtivals.

THE *Feſtivals* and *Solemnities* of the *Heathen* were neceſſarily very many, ſince almoſt *every particular Deity* was allow'd thoſe *ſacred Honours*: As the *Saturnalia*, Feaſt of five Days Continuance dedicated to *Saturn*; *Adonia*, to *Adonis*; *Ambarvalia*, ſacred to *Ceres*; *Bacchanalia* and *Orgia*, *Liberalia*, *Dionyſia*, all the Feaſts of *Bacchus*; *Cerealia*, others of *Ceres*; *Lemuria*, of the *Lemures* or *Night Ghoſts*; *Lupercalia*, of the God *Pan*; *Munychia*, of *Minerva*; *Faunalia*, of the *Fauns*; *Antheſphoria*, of *Proſerpine*; *Megaleſia*, of *Cybele*; *Floralia*, of *Flora*; with numberleſs others; all which were celebrated in a manner ſuitable to their Notions of the Deities to which they were dedicated.

Pagan Prieſts.

THE *Pagans* diſtinguiſhed the *Prieſts* peculiar to each *Divinity* by different Appellations alſo. Thus the *Luperci* were the Prieſts of *Pan*; *Flamen Dialis*, the Prieſt of *Jove*; *Flamen Quirinalis*, of *Romulus*; *Flamen Martialis*, of *Mars*; *Virgines Veſtales*, or the *Veſtal Virgins*, *Prieſteſſes* of *Veſta*; *Galli*, Prieſts of *Cybele*; *Phœbades*, of *Apollo*, &c.

The Names of Prieſts in ſeveral Nations.

THE different *Heathen Nations* of the World give the following Names to the *Prieſts*, viz. The *Romans* call theirs *Flamines*; the ancient *Britons* theirs *Druids*; the *Indians* theirs *Brachmans*; the *Mogul's Indians* theirs *Daroes* or *Harbods*; the *Perſians* theirs *Sedre*; the *Tartarians* theirs *Lama*; the *Moroccos* theirs *Alfaquis*; and the *Canada Weſt-Indians* theirs *Pawwaws*; the *Chineſe* and *Japoneſe* call theirs *Bonzes*.

IN

In *Sacrifices*, the Beaſts offer'd to the *Celeſtial Gods* were *white*, and thoſe to the *Infernal* ones *black*: To *Jupiter* they ſacrificed a *white Ox*; to *Neptune*, *Mars*, and *Apollo*, a Bull, Ram, and Boar; to *Ceres* they offer'd Milk, Honey, and the *Sow Pig*; to *Æſculapius* Goats and Poultry; to the *Lares* a Cock; to the *Sun* and *Mars* an Horſe; to *Juno* a She Lamb; to *Venus* a Dove or Pigeon; to *Diana* a Crow; to *Pan* and *Minerva* She Goats; and Kids to the *Fauns*. *The Beaſts appropriated in Sacrifices.*

Of *Beaſts*, the Lamb was ſacred to *Juno*; Lions to *Vulcan*; the Hind to *Hercules*; the Wolf to *Apollo*; the Horſe to *Mars*; the Calf to *Iſis*; Dogs to the *Lares*; Serpents to *Æſculapius*; the Graſhopper to *Apollo*; the Dragon to *Minerva*, *Bacchus*, &c. Among the *Birds*, the Hawk was ſacred to *Apollo*; the Eagle to *Jove*; the Gooſe to *Juno*; the Dove to *Venus*; the Crow to *Apollo*; the Cock to *Æſculapius*, *Minerva* and *Mars*; Owls to *Minerva*; the Vultur to *Mars*; the Phœnix to the *Sun*. Among the *Trees*, the Fir was ſacred to *Bacchus*; the Cypreſs to *Pluto*; the Cedar to the *Furies*; the Aſh to *Mars*; the Oak to *Jove*; the Laurel to *Apollo*; the Myrtle to *Venus*; the Olive to *Minerva*; the Poplar to *Hercules*; the Pine to *Cybele*; the Roſe to *Venus*; the Vine to *Bacchus*, &c. *The Beaſts, Fowls, Trees, &c. ſacred to the Gods.*

Of MYTHOLOGY; *or, The* EXPLANATION *of the* FABULOUS HISTORIES *of the* HEATHEN GODS *and* HEROES.

Mythology, what.

MYTHOLOGY is the *Interpretation* of the *Fabulous Stories* concerning the *Pagan Deities, Heroes, Monsters*, &c. according to the *Historical, Moral*, and *Philosophical* Meaning and Signification of each, couch'd under and disguised by *Poetic Fiction* and *Romantic Circumstances* of various sorts.

The Origin of Heathen Fables from the Scriptures.

MOST of these *Fables* and *fictitious* Relations took their Rise from the sacred Scriptures of the *Old Testament*; as plainly appears from *Hesiod's Theogony* or *Genealogy* of the *Gods*, and *Ovid's Metamorphoses*. For *Hesiod* deduces the *Pedigree* of all his *fabulous Deities originally* from *Chaos*, which he makes the *First* of all the Gods: Thus *Moses* derives the World with all its Beauties and Glory from an *original Chaos*, or a *confused* and *undigested Heap* of *Matter*; which he says was *without Form* and *void*.

Chaos.

The Analogy between Moses's *History and* Hesiod's *Fiction, in his Theogony.*

HESIOD tells us, that immediately after *Chaos*, appear'd *Tellus, Tartarus* and *Amor*; by *Tellus* he meant the *Earth*, by *Tartarus* the *unseen Abyss* in or under the Earth, and by *Amor* the *lovely Beauty* and *Harmony* of the World. Agreeably to this *Moses*, after he mentions the *Chaotic State* of the Earth, speaks of the *Face* of the *Deep* or *Abyss*, and then the *regular Disposition* and *beautiful Order* of the World by the divine Wisdom and Power of the Creator ensued; in which Things there is an evident Analogy between them.

AGAIN,

AGAIN, *Heſiod* tells us, that *Chaos* brought forth *Erebus* and *Nox*, that is, *Gloomineſs* and *Night:* And *Moſes* ſays, that while the Earth was in the *Chaos*, a gloomy Darkneſs overſpread it, and all was Night; for there was no *Light*. Again *Heſiod* ſays, from *Nox*, or *Night*, ſprang *Æther* and *Hemera*, that is, *Air* and the *Day*; and that they were produced, when *Amor* and *Erebus* were mix'd together; that is, when *Light* was divided from the *Darkneſs*, and both together made one Day. All which exactly anſwers *Moſes*'s Account of the Creation of the *Firmament*, the *Day* and the *Night*.

HESIOD farther tells us, that *Tellus* begat *Cœlum*, every way equal to itſelf, and beſet with *Stars*, and which cover'd the whole Earth, and was the Seat of the *bleſſed Gods*. That is, in *Moſes*'s Words, God made and call'd the *Dry Land Earth (Tellus,)* and the *Firmament* he call'd *Heaven (Cœlum,)* in which are the *Stars*, which he made alſo. He farther tells, that the Earth *(Tellus,)* begat *high Mountains* and *delightful Caves* of the *Goddeſſes Nymphs*; as alſo *Pelagus* and *Pontus (Seas;)* agreeable to the *Moſaic* Account of the *Dry Land*, and the *Seas*. Then he relates the Birth of *Oceanus* (the *Ocean,)* and a vaſt *Progeny* of other *Deities*, amongſt which was *Saturnus*, from the *Embraces* of *Tellus* and *Cœlum*, or the *Energy* and prolific Influences of the *Earth* and the *Heavens*; and by this Means he fills the World as full of *terreſtrial*, *celeſtial*, and *marine Gods*, *Goddeſſes*, *Nymphs*, &c. as *Moſes* had done with *Men*, *Beaſts*, *Fowls* and *Fiſhes:* So that 'tis to me evident, that the beginning of *Heſiod*'s *Theogony* is no other than a *Poetical Imitation* of *Moſes*'s *Coſmogony*, or *Creation* of the World.

Heſiod's Theogony a Poetical Imitation of Moſes's *Coſmogony or Creation of the World.*

THE Fable of *Saturn*, as before related, may be interpreted, (1.) In a *Philoſophical Senſe:* For by *Saturn* is meant *Time*; *Saturn* in *Greek* is call'd *Cronos*, and *Time Chronos*; the Difference is but one Letter. *Saturn* devour'd his Children, ſo *Time* devours and conſumes all Things it has produced: Or elſe, the Years, Months and Days are the Children of *Time*, which he devours and again produces anew. Laſtly, *Saturn* had his *Scythe*, ſo has *Time* wherewith he mows down all Things; and *Saturn*'s *Serpent* biting his *Tail*

The Fable of Saturn *explain'd. The Philoſophical Senſe.*

is a proper Emblem of the *endleſs Circulation* of *Years*, *Ages*, and other *Periods* of Time.

The Hiſtorical Senſe; Saturn *is* Noah.

Secondly, *Saturn* in an *Hiſtorical Senſe*, is *Noah*: For 'tis ſaid in his Time there was but *one Language*, which was common to Men and Beaſts; ſo in *Noah*'s *Days* the whole Earth ſpake but *one Tongue*. *Saturn*'s Wife was *Tellus*, or *Rhea*, or *Ops*, all which ſignify the *Earth*: And *Noah*, in the *Original Hebrew*, is ſaid to be a *Man of the Earth*, or an *Husbandman*. *Saturn* is ſaid to have found the Art of cultivating *Vines* and *Fields*, and by Scripture we find *Noah* the firſt *Planter* of *Vineyards*. Again, *Noah* was overcome with Wine, ſo *Saturn* protected *drunken Men*. *Noah* curſed *Ham* for ſeeing his *Nakedneſs* and not hiding it; ſo *Saturn* made a Law to puniſh thoſe who ſhould look on the *Gods naked*. *Noah* and *Saturn* both foretold a Flood, and the Building an Ark, *&c.* *Saturn* devour'd all his Sons but three; ſo *Noah* left all the old World behind him, dead and devour'd as it were, whilſt he with his three Sons eſcaped with Life; with many other *parallel Caſes*.

The Golden, Silver, Brazen and Iron Ages moralized.

In *Saturn*'s Reign was the *Golden Age*, which the *Poets* magnify the Happineſs of to that Degree, that they would perſuade us the Earth *ſpontaneouſly* brought forth its Fruits without Man's *Labour*; that all things were common to all; that there were no Quarrels nor Contentions among any; but that all the Earth enjoy'd a perfect Scene of uninterrupted *Eaſe*, *Peace*, *Saturity* and *Delight*. The *Moral* of which is, that in the priſtine State of the World, Men's *Reaſon*, *Natures*, and *Manners* were more *perfect*, and *conformable* to the Rules of *Juſtice* and *Equity*; and according as this their original *Moral Rectitude* declined, and gradually became deprav'd and corrupted in ſubſequent *Ages*, ſo the *Poets* on that ſcore made the *Silver*, the *Brazen*, and the *Iron Age* to ſucceed in order; and thereby *beautifully* repreſented the *fatal Gradation* from primæval *Virtue* to modern *Vice*. 'Tis ſuppoſed this excellent *Fiction* took its Riſe from *Nebuchadnezzar*'s *Dream*.

The Hiſtorical Meaning of Jupiter, Pluto, *and* Neptune.

JUPITER, according to *Hiſtorians*, was King of *Crete*; and having depoſed his *Father*, afterwards divided the Kingdom by Lot with his two Brothers *Neptune* and *Pluto*; and becauſe the *Eaſtern* Part fell

to

to *Jupiter*, the *Weſtern* to *Pluto*, and the *Maritime* to *Neptune*, from thence they took Occaſion to feign, that *Jupiter* was *King* and *God of Heaven*, the Sun firſt riſing on his Dominions; that *Pluto* was the Sovereign of *Hell*, becauſe the Sun going beneath his Territories, left the Earth in *Gloomy Darkneſs*; *Neptune* alſo muſt needs be *God* of the *Seas*, whoſe *Juriſdiction* lay bordering upon them. Again, in a *Philoſophical Senſe*, *Jupiter* is taken for the *Air* and *Heaven*, and therefore commands the *Thunder*, *Lightning*, &c. Some by *Jupiter* underſtand *Fate*, the *Stoical Cauſe* of all Things. Others ſay by *Jupiter* is meant the *Soul of the World*, or that *Principle* which actuates the World, and renders it prolific and productive of all Things.

The Philoſophical Meaning of Jupiter.

By *Apollo* is meant the *Sun*, as is evident, ſince he was the God of *Propheſy* and *Divination*, as the Sun by his *luminous Beams* diſpels *Darkneſs*, and brings conceal'd and hidden Things to *Light*. *Apollo* preſided over the Art of Medicine; thus the Sun by its ſalutary and balmy Rays gives *Natural Life* to all Things, and cauſes the *Plants* and *Herbs* to grow for the Purpoſes of *Health* and *Medicine*. *Apollo*'s *Darts* are an apt Emblem of *radiating Beams* of *Light*, which the Sun as it were darts or ſhoots upon the Body of the Earth. Laſtly, *Apollo* preſided over *Muſic*; and is not the Sun the true Cauſe of the Harmony of the *Spheres*? And does not his *Harp* of *ſeven Strings* repreſent the *ſeven planetary Orbs*, wherein they dance about the *Sun perpetually*?

The Fable of Apollo *explain'd of the Sun.*

By *Mercury* is meant the *Faculty* of *Eloquence*, or Uſe of Speech; his Name in *Greek* (*Hermes*,) being compoſed of two Words, ſignifying *to ſpeak*. Hence he is call'd the *Nuncio* of the Gods, becauſe by Speech we are able to communicate our Thoughts to others, and make our *Words* the *Meſſengers* of our Minds. *Mercury* was allow'd Wings; ſo our Words fly ſwiftly through the Air: He held a *Golden Wand*, to ſhew the Excellency of ſeaſonable and friendly *Admonition*; he was the *Interpreter* of the *Gods*, as *Words* and *Language* are of our Minds to one another: He was the God of *Merchandiſe*, ſince all Commerce is tranſacted by means of the *ſociable Faculty* of Speech. He conducted the Souls of the Dead to the Shades below, either

The Fable of Mercury *moraliz'd*; Mercury *means Eloquence.*

ther to *Hell* or the *Elyſian Fields*; which ſhews how much a Man's future State depends upon the Nature and Tenor of our Speech and Diſcourſe: Thus our Lord ſays, By *thy Words* thou ſhalt be *juſtified*, and by *thy Words* thou ſhalt be *condemn'd*. He ſtole *Vulcan*'s Tools, *Venus*'s Girdle, and attempted *Jupiter*'s Thunder; all which ſhew the thieviſh Power of Eloquence, which ſteals from us our very Senſes, and diſarms us of our Reaſon in the *Attacks* of Love and Sophiſtry.

By Mars *is meant War.*

THE Fable of *Mars* holds forth the Nature of *War:* His *Countenance* and *Actions* before related are all correſpondent thereto; and all ſo eaſy to be interpreted and apply'd, that the Fable itſelf is its own *Mythologiſt*.

Bacchus *is* Nimrod, *or* Moſes.

BACCHUS is ſaid by ſome to repreſent *Nimrod*, by others *Moſes*; there being many Circumſtances in which he may be thought to reſemble both, too tedious here to enumerate. But as to the *Moral* Senſe,

The Moral of his Fable.

'tis obvious *Bacchus* means Wine among the *Poets*. Thus *Jupiter* is ſaid to bear *Bacchus* in his *Thigh*, and thereby to go limping; which ſhews how we reel to and fro, and *ſtagger* through the *Influence* of too much Wine. *Bacchus* is always a Boy, ſo the *oldeſt Men* when drunk are as ſilly as Children. *Bacchus* is naked; and does not Wine *diveſt Men* of their *Reaſon*, and make them lay open all the Secrets of their Minds and Bodies too? *Bacchus* has *Horns*; and how many does Wine occaſion to be crown'd with thoſe *Enſigns* of *Cuckoldom? Bacchus* was *inflam'd* with the Love of *Venus* and *Ariadne*; thus *Wine* is a never-failing Provocative to *Venery* and *Debauchery*; beſides abundance of other *parallel Caſes*.

By Juno *is meant the Air.*

BY *Juno*, the *Conſort* of *Jove*, is meant the *Air:* She was both Siſter and Wife to *Jupiter*; ſo the Air was produced at the ſame Time as the Sky, and was cloſely conjoin'd therewith. And by the Commixture of the *Influences* of the *Heavens*, and the *Vapours* of the *Earth* in the Air, they ſuppoſed all Things almoſt were produced, according as the moſt *numerous Iſſue* of *Gods* and *Goddeſſes* ſprang from the *Embraces* of *Jove* and *Juno*.

Minerva *is the Symbol of Wiſdom and Virtue.*

MINERVA is ſuppoſed by ſome to perſonate *Eve* in the Mask of *Fable*; but be that as it will, 'tis certain ſhe was the *Symbol* of *Wiſdom* and *Chaſtity*;

For

For *Minerva* was born of *Jupiter*'s *Brain*; thus true *Wiſdom* is the Offspring of Heaven, and *Chaſtity* the moſt heavenly and godlike Virtue. She was born *armed*; ſo a wiſe Man's Soul is arm'd with *Wiſdom* and *Virtue*, and is thereby render'd invincible: She was always a *Virgin*, as the *wiſe* and *virtuous Perſon* is often repreſented as cloathed with *Virgin Innocence* and *Purity*. *Minerva* has a *ſevere* and *ſtern Countenance*; for nothing renders a Man more awful and truly great and noble, than Sagacity, Prudence, and a blooming Virtue: She was the Inventreſs of many noble and uſeful Arts; and truly moſt Arts and Sciences have owed their Original to *Wiſdom* and *Learning*. *Minerva*'s *Spindle* and *Diſtaff* teach an excellent Leſſon of *Induſtry* to every virtuous and diſcreet Woman. When *Tireſias* ſaw *Minerva* naked, he loſt his Sight indeed, but became a Prophet inſtantly; ſhewing that *Wiſdom* and *Virtue* infinitely recompenſe all the *Labour*, *Hardſhips* and *Damage* we ſuſtain in acquiring them. The *Owl* was ſacred to *Minerva*, to ſhew that a *wiſe Man* can *ſee* where others are ſtark *blind*. *Minerva* bore in her Shield the *ſhocking Head* of *Meduſa*, to intimate nothing is more *formidable* than the Weapons of *Wiſdom* and *Virtue*, even in *martial Affairs*.

THAT *Venus* is the Emblem of *Love* is well known; the Manner of her Birth declares her to be *carnal Luſt*; her Companions ſhew the *wanton Diſpoſitions* of amorous Perſons, and their ſtrange Propenſities to *obſcene Pleaſures*. She preſides over Beauty, which is the great *Fomenter* of impure Deſires and *unchaſte Love*. *Venus* rides in a *Chariot*, and no Wonder; for who rules with more imperious Sway, and leads more *Captives* in *Triumph*, than the *Paſſion Luſt*? She wears a Crown, as being always victorious. She carried a Looking-glaſs, to ſhew her the *Frailty* of her *Beauty* by the *Brittleneſs* of the *Glaſs*. She was born from the *Sea*, to ſhew the turbulent and reſtleſs State of Lovers. She was Wife to *Vulcan*; nothing being a more conſtant Aſſociate of impure and unlawful *Amours*, than a dark Deformity of Mind. She play'd the Whore, was caught in *Chains* of *Iron*, and expoſed naked in the Embrace of her Lover to the Contempt of the Gods; and what is more common than for a *Debauchée*

The Fable of Venus *moralized.*

Debauchée to walk in the *Iron Fetters* of a *guilty Conſcience*, and be expoſed to the *Contempt* and *Deriſion* of all?

Aurora, *the Dawn of the Morn.*

By *Aurora*, the Poets underſtood no more than the *Dawn* of the Morning, which ſpreads a diffuſive Luſtre over all the *Orient Skies*, and paints the Clouds, on which ſhe rides, with all their *Golden Glory*, ſo beauteous to behold in *Summer-time.*

The Hiſtorical Senſe of Vulcan *is* Tubal-Cain.

VULCAN is only a Corruption of *Tubal-Cain*, by an *Aphæreſis* of the firſt Syllable *Tu*; for then it will be *Bal-Cain*; but the *Eaſtern* People pronounce *B* very often like *V*, which in this Caſe makes *Valcain*, from whence *Vulcan* eaſily flows. Moreover, *Vulcan* was a *Blackſmith* and the God of Fire; and *Tubal-Cain* was the firſt *Artificer* in *Braſs* and *Iron* we read of; and of conſequence they were the ſame Perſon. *Secondly*, in a *Philoſophical Senſe*, *Vulcan* is Fire; thus *Vulcan* is *Lame*, becauſe Fire cannot be ſupported without Fuel. He was caſt down from *Heaven*, becauſe the *Lightning* is darted thence; and ſaid to fall on the *Iſland Lemnos*, becauſe it is remarkably ſubject to *Lightning*. *Thirdly*, *Vulcan* in a Moral Senſe is the *Flame of Love*; he was the *Huſband* of *Venus*; and whoever give themſelves up to her, ſhe ſeldom fails to make them *Vulcans*, as filthy, naſty, and deform'd as he, as black as *Hell*. Every effeminate Man is a *Vulcan*, a *Blackſmith*, who with his (*Cyclops*,) deform'd and ſightleſs *Paſſions*, is always toiling at the *burning Forge of Luſt*, and making *Thunder-bolts*, which at laſt will fall on his own Head.

In a Philoſophical Senſe, Fire.

In a Moral Senſe, the Flame of Love

The Fable of Æolus *explained.*

By *Æolus* you are to underſtand an antient *King* of the *Æolian Iſlands*, who ſtudied *Aſtronomy* and *Philoſophy*, and particularly the *Nature* of the *Winds*, ſo that he could tell what Times and how long ſuch Winds and Tempeſts would be, and when it would be *calm*; in which kind of Skill he was the more perfected by the *Clouds*, *Miſts*, and *Smoke* of theſe Iſlands, which always preſaged great Store of Winds, ſo that it was generally believed they were under his Power, and that he could raiſe and calm them at his Pleaſure.

Janus *an antient King of* Italy; *and an*

JANUS was a perfect *Emblem* of *Prudence*. He was the moſt antient King of *Italy*, among the *Aborigines*, and receiv'd *Saturn* when his Son *Jupiter* baniſh'd

niſh'd him from *Crete*, and gave him Part of his *Kingdom*. *Saturn* taught him *Huſbandry*, and *Coining* Money; and in ſhort his Knowledge and Skill was ſuch, that he was reckon'd the wiſeſt of all Kings, and knew Things paſt and future; therefore he was rever'd, and painted with *two Faces*, as all prudent Men, in a Senſe, ought to have: For *Prudence* conſiſteth mainly in a *Remembrance of Things paſt, and in the Foreſight of Things to come*. *Janus* holds in his Hand a Key; ſo a *prudent Perſon* may be ſaid to have the *Key* of Knowledge, and to unlock many *Doubts*, *Myſteries*, and *Intricacies* which puzzle and obſtruct others in the *Affairs* and various Exigencies of Life. *Janus*'s *Altars* and *Incenſe* ſhew that the *Honour* and *Adoration* of the *Almighty* is the Effect of *Prudence* and *Underſtanding*; and that *Fools* only ſay *there is no God*, and worſhip none.

Emblem of Prudence.

VESTA is the ſame with *Fire*; as is evident from various Expreſſions in the Poets: But it is rather ſuppoſed by *Veſta* is underſtood the *Vital Flame* or *Heat* of the Body, which is the firſt Principle of *Animal Nature*. The *Veſtal Fire* was perpetual; ſo is the *Native Heat* of Bodies, which *conſtantly warms* and *actuates* the whole. The *Veſtal Virgins*, if they neglected this Fire, and let it go out, were grievouſly puniſhed, and buried alive. We are thoſe *Veſtal Virgins*, who, if we neglect to *nouriſh* and keep up the *Vital Flame* of our Bodies to its due *Tenor*, or corrupt and weaken the ſame by *Debauchery* and ill Courſes, divers *Diſeaſes* will *excruciate* and *torture us*; we ſtab our *Reputations* and bury them in Ignominy and Reproach, whilſt we live; and the *Flame* becoming extinct, our Memories are interred with our Carcaſſes, and rot with them in the Grave.

Veſta *means Fire, and the natural Heat of the Body.*

By *Ceres* is to be underſtood that *genial prolific Principle* in the Earth, which is the Cauſe of *Vegetation*, or of the *Production* and *Nouriſhment* of *Herbs*, *Corn*, *Fruits* and *Trees*. *Ceres* is beautiful and well-ſhaped, ſo is the Earth array'd in all the Gaiety of *vernal Verdure* and *flowery Pride*. *Ceres* was born of *Saturn* and *Ops*, that is, of *Husbandry* and the fertile Soil; ſo is Corn: She wore yellow Hair; and the Ears of Corn, when ripe, are adorn'd with that *Golden Colour*: She was crown'd with the Ears of Corn, ſo

The Fable of Ceres *explain'd Philoſophically and Morally.*

is

is the Earth in Harveſt. *Eriſichthon* contemn'd the Sacrifices of *Ceres*, defiled her Groves, &c. for which ſhe puniſh'd him with *perpetual Hunger*. This ſhews how every (*Eriſichthon,*) *idle Perſon*, who hates Induſtry, ſhould be puniſh'd with *Hunger*, and cloath'd with *Rags*. *Ceres* once abſconded herſelf, and in her Abſence a general *Corruption* of the Corn and Fruits enſued, and from thence ſprang a great *Infection* among all Beaſts and Cattle; the *Moral* of which is too eaſy to need explaining.

The Philoſophical Signification of the God Pan.

By the Image of the *God Pan* the *Poets* underſtood the *Univerſe*, for the Word *Pan* in *Greek* ſignifies *all*; his upper Part reſembled a *Man*, his lower Parts a *Beaſt*; becauſe *Men* and *Beaſts* make the moſt conſiderable Part of the World, and the former much the *ſuperior*. His red Face repreſents the *bluſhing Splendor* of the Skies; his Horns thoſe of the *Moon*; his ſpotted Skin, the *party-colour'd Firmament*, or the *ſtarry Sky*: his *hairy ſhagged Thighs* and *Legs*, the Shrubs and Trees of the Earth; his Goat's Feet, the *Stability* of the Earth; and his *Pipe* of *ſeven Reeds*, the *celeſtial Harmony* of the *ſeven planetary Spheres*.

By Diana *is meant the Moon.*

DIANA repreſents the *Moon*; therefore ſhe appears *horned*. *Diana* is ſaid to have *three Countenances*; ſo has the *Moon* her *three Phaſes* of *New*, *Quarter*, and *Full*. *Diana* is ſaid to be a great *Huntreſs*, becauſe the *Moon* is conſtantly journeying round the Earth, and darting her Rays thereon. She was a *Virgin*, becauſe the Moon is *One*, and has no *Aſſociate*.

The Fable of Endymion *explain'd.*

'Tis ſaid ſhe had a Gallant, nam'd *Endymion*, whom ſhe ſo loved, as to deſcend out of Heaven to kiſs him; which Fable implies no more than that *Endymion* was a great *Aſtronomer*, and firſt deſcrib'd the Courſe of the Moon. Again,

The Fable of Actæon *moralized.*

As *Actæon* was hunting one Day, he chanced to ſpy *Diana* bathing herſelf in a *Fountain*; and becauſe he dar'd to behold the *Goddeſs naked*, ſhe turn'd him into a *Stag*, whom his own Hounds *purſued*, and devour'd him. By which Fable is intimated, that thoſe who ſpend their Time in *over curious Reſearches* into the *Nature* of *ſecret Things*, are juſtly made a *Prey* to their idle and impious *Humours*, and generally beggar and undo themſelves.

The Moral of the Fable of the Sirens.

By the Fables of the *Sirens*, *Circe*, *Charybdis* and *Scylla*, is repreſented to us the enſnaring Nature of Pleaſures, *Voluptuouſneſs*, *Luſt*, and *Gluttony*. The *Sirens* are the vain deceitful *Pleaſures*, which as it were ſing and ſooth us to *ſleep*, to a State of *ſenſeleſs Stupidity*, and then never fail to devour us.

Of Circe, *the Sorcereſs.*

Circe was that terrible *Witch* who it is ſaid drew down the *Stars* from Heaven, and by her *Sorceries* turn'd all her *Viſitants* into *Hogs*, *Dogs*, *Bears*, *Wolves*, and ſuch like Beaſts; and doth not *Voluptuouſneſs*, by a kind of *Sorcery*, ſo infatuate Men and change their Natures into a *ſwiniſh*, *cynical*, and *beſtial Diſpoſition*, that they rather reſemble *Brutes* than Men? And even thoſe who by their *Wit*, *Learning* and *Virtue* too, have ſhone like the Stars in the *Firmament*, have fallen too often from their Glory, by the *inchanting* Power of *ſenſual* and *obſcene* Pleaſure: None being ſufficiently guarded againſt her, but (*Ulyſſes*) a *virtuous*, *pious*, and *valiant* Man, who ſcorns the *ſordid Pleaſures* of a *ſenſual Life*.

Of Scylla; *and of* Charybdis.

Again, *Scylla* is Luſt, the *fatal Rock* on which ſo many have ſhipwreck'd their *Honeſty*, *Honour*, and *Fortunes*. *Charybdis* is the horrible Whirlpool of *Gluttony*, the *inſatiable Gulph*, which hath drawn down *Families alive*, devour'd whole Eſtates, and *ſucks down* all Things into an *Abyſs* of *Deſtruction*.

The Fable of Plutus *moralized.*

PLUTUS, or *MAMMON*, as being the God of *Riches*, hath his *Palace* in Hell, and no Place more fitting; for, can any one ſerve the true God and Mammon? Is not Wealth the Root of all Evil? Can there be any more ready Way to *Hell* than to hunt after Riches? *Plutus* is ſaid to be *lame:* Ah! how do rich Men limp when they go to give *Alms*, how ſlow their Motion! What diſmal Grimaces attend their Acts of Charity! *Plutus* was blind; and what rich Man can *ſee the Wants* of his poor Neighbours? How pur-blind are they to Merit! and how few rich Men can ſee any *Folly* or *Defects* in themſelves! *Plutus* was very *Injudicious*; the Picture of a *Rich Man!* who paſſeth by *good Men*, and heaps his Favours on the *Bad* and *Undeſerving*. *Plutus* was *timorous*, ſo are all *Rich Men*; they are continually in a *Panic*, and watch their Treaſures with the utmoſt *Care* and *Fear*.

THE

The Fable of the Centaurs *explain'd.*

THE *Centaurs* were antient People of *Theſſaly* near Mount *Pelion*, who firſt broke Horſes for *War*; the ignorant Country People ſeeing them at a Diſtance on *Horſeback*, ſuppoſed they were (both Horſe and Man) but one *Creature*; whence the Fable before-mentioned.

As alſo that of Geryon.

THE Fable of the Monſter *Geryon*'s having three Bodies, is thus to be underſtood: *Geryon* was, in antient Times, a King of the three *Spaniſh Iſlands* call'd *Balearides*: Or elſe thus; from the *Unity* there was between the *three Brethren* of that Name, who ruled ſo lovingly together, that they *all three* ſeem'd to have but *one Soul.*

Harpies, Gorgons, *&c. moralized.*

BY the *Helliſh* Monſters *Harpies* and *Gorgons*, &c. are to be underſtood the *black and deviliſh Arts* and *Practices* of *Lewd* and *Vicious Women*; who having caſt off all *Shame*, *Modeſty*, and *Grace*, appear in their *Affections*, *Paſſions*, and *Actions* as monſtrous and *deform'd* as the *infernal Inhabitants* now mention'd.

The Fiction of the Chimæra *explain'd.*

THE *Chimæra* is a *Fiction* deriv'd from a *Volcano* or *Mountain* of *Lycia* which caſts out Fire: For on the Top thereof *Lions* harbour'd; *Goats* in and about the *Middle*, where there was much *Paſture*, and the bottom thereof abounded with *Serpents*; and becauſe *Bellerophon* made this Mountain habitable, he was ſaid to ſlay the *Chimæra.*

Tantalus *the Emblem of a Miſer.*

TANTALUS was deſign'd to repreſent a *Miſer*; for like him they live in the midſt of Plenty, but enjoy it not. 'Tis peculiar to them to ſtarve in a continual Feaſt; to famiſh amidſt full Barrels, and to freeze by the *Fire-ſide.*

The Story of Orpheus *and* Amphion *moralized.*

ORPHEUS and *AMPHION* are ſaid to be ſo very ſkilful in *Muſic*, that the firſt play'd on his *Harp* and ſung ſo ſweetly, that he tamed *wild Beaſts*, ſtay'd the *Courſe* of *Rivers*, and made the Woods follow him; and that by the Melody of the latter, the Stones moved ſo regularly, that they form'd the Wall of the City of *Thebes*. The Moral of all which is this, That *Orpheus* and *Amphion* were both Men ſo *eloquent*, that they perſuaded thoſe who lived *ſavage Lives*, like the *wild Beaſts*, before, to embrace the Rules and Manners of *Civil Society.*

The Fiction of Atlas, *whence.*

ATLAS is ſaid by the Poets to have born the *World* on his *Shoulders*; which Fiction aroſe hence, that

that *Atlas*, an antient King of *Mauritania* in *Africa*, firſt invented the Science of *Aſtronomy*, and reduced the Motions of the Heavenly Bodies to ſome Degree of *Certainty* and *Regularity*, which were all before unknown.

The Fable of Heſperus.

HESPERUS was the Brother of *Atlas*, who alſo ſtudied *Aſtronomy*, and frequently went up Mount *Atlas* (ſo nam'd of his Brother) to view the Stars: At laſt he went up and came down no more; at this the People imagin'd that he was carried to Heaven, and became the *Evening* and *Morning* Star, call'd *Heſperus* (or *Veſper*) and *Phoſphorus*, or *Lucifer*.

The Gardens of the Heſperides *the ſame with the Garden of* Eden.

THE *Heſperides* were three Daughters of *Heſperus*, by Name *Ægle*, *Arethuſa*, *Heſperethuſa*; and 'tis ſaid in their *Gardens* Trees were planted which bore *Golden Fruit*; theſe Trees were guarded by a watchful *Dragon*, which at laſt *Hercules* kill'd and carried away the *Golden Apples*. The Ground of this Fable is ſuppoſed to be the *Garden of Eden*, and the forbidden *Tree* of *Knowledge*, and *Tree of Life*, the Trees which bare the Golden Fruit.

The Fiction of Prometheus *and* Pandora *applied to the Creation of* Adam *and* Eve, *and the Fall of Man.*

PROMETHEUS, the Son of *Iapetus*, is ſaid to have made a Man of Clay or Earth, and afterwards to ſteal Fire from Heaven, in order therewith to put Life and Soul into his Man; this Theft ſo diſpleas'd *Jupiter* that he ſent *Pandora* into the World to *Prometheus* with a Box, from which, when open'd by her Huſband *Epimetheus*, there flew out all Sorts of *Evils* and *Diſeaſes* which have peſter'd Mankind ever ſince. And afterwards *Prometheus* was chain'd to Mount *Caucaſus*, and an Eagle perpetually prey'd on his Liver, as a farther Puniſhment of his Impiety. As to the *Moral* of all this, I think his making a Man of Clay may allude to the Creation of *Adam* out of the *Duſt of the Earth*: And that *Pandora* (who alſo was made by *Vulcan* at *Jupiter*'s Command, and whom every Deity adorn'd with various Gifts, *Minerva* giving her Wiſdom, *Venus* Beauty, *Apollo* Muſic, *Mercury* Eloquence, *&c.* I ſay this *Pandora)* was *Eve*, who, to be ſure, before the Fall poſſeſs'd all the Heavenly Graces and Endowments poſſible, but by her Tranſgreſſion (the *Fatal Box)* ſhe open'd the Way for all the ſubſequent *Evils* and *Miſchiefs* in the World.

DEU-

Deucalion's *Deluge was* Noah's *Flood.*

DEUCALION (the Son of *Prometheus*) and his Wife *Pyrrha* are ſaid to reign in *Theſſaly* when a *Deluge* happen'd ſo great that it overflow'd the Earth, and deſtroyed all Mankind, excepting only *Deucalion* and his Wife *Pyrrha*, who were carried in a little Ship upon Mount *Parnaſſus*; and when the Waters abated, they conſulted the Oracle of *Themis*, to know how Mankind might be again reſtored; the *Anſwer* was, *They ſhould caſt the Bones of their Great mother behind them*, (i. e. the *Stones of the Earth*;) accordingly they did ſo, and from theſe Stones ſprang a *New Race* of *Men* and *Women*. All which, 'tis very evident, is but a *Poetical Metamorphoſis* of *Noah*'s *Flood*, and ſome of its moſt conſiderable *Circumſtances*.

Iphigenia *is* Jeptha's *Daughter.*

IPHIGENIA was the Daughter of *Agamemnon* and *Clytemneſtra*; her Father by chance kill'd a Stag of *Diana*'s, who in Revenge ſtopt the Paſſage of his Fleet with contrary Winds, and the Oracle told them, that *Diana* would not be appeas'd, unleſs ſome of *Agamemnon*'s Blood were ſacrificed. Whereupon *Ulyſſes* got *Iphigenia* from her Mother by *Craft*; but as ſhe ſtood by the *Altar* at *Aulis*, ready to be ſacrificed, *Diana* pitied her, and put a Hind in her ſtead; and made her one of her *Prieſteſſes*, who ſolemnized her Sacrifices with *human Blood*. And now how plainly does this appear to be the Scripture-Hiſtory of *Jeptha*'s Daughter, under the *Diſguiſe* of *Poetical Fiction*, and ſome fabulous Accommodations.

The Fable of Phaeton *variouſly applied.*

PHAETON was the Son of *Sol* and *Clymene*; he requeſted of his Father *Phœbus* to drive the *Chariot* of the *Sun* for one Day: He granted it, but warn'd him of the *Danger* thereof: *Phaeton*, careleſs of any future Event, mounts the *Chariot*, the *Fiery Horſes* drove furiouſly through the Heavens, and their Driver not able to govern them, let the Reins go, and had like to have ſet the whole World on Fire; to prevent which *Jupiter* ſtruck him with a *Thunderbolt*, ſo that he fell into the River *Eridanus*, now call'd the *Po*. His Siſters were turn'd into *Poplar Trees*, and wept for him with Tears of Amber on the ſame *River*'s Banks. Some think this *Phaeton* was *Phut* the third Son of *Cham*, who was ſkill'd in *Aſtronomy*, and therefore call'd the Son of *Sol*; and that he foretold the great Conflagrations in *Italy* and *Ethiopia*, which happen'd

To Phut *Son of* Cham.

pen'd *Anno Mundi* 2426. Others ſay, this Fable had its Origin from the Hiſtory of *Elijah*, who was taken up into Heaven in a *Chariot* and *Horſes of Fire*. Others think it refers to the Deſtruction of *Sodom*, *Gomorrah*, &c. by *Fire* and *Brimſtone* rain'd from Heaven. And laſtly, 'tis ſuppoſed the Moral is level'd at ambitious and inconſiderate *Princes*, and *Prime Miniſters*, who, uncapable of the high and weighty Charge they have taken on them, let looſe the Reins of their indiſcrete Government, and thus ſet the Subjects all in a *Combuſtion*, and endanger their own *Downfal*. Such a *Phaeton* fell upon the River *Thames*, and ſet *England* in Flames, not an Age ſince.

To Elijah.

To the Burning of Sodom, *&c.*

The Moral thereof.

NISUS was a King of the *Megarenſes*, and had a *Purple-colour'd* or *Golden Lock* of *Hair* among the reſt on his Head; on this *Lock of Hair* the Fortune of his Kingdom depended. His Daughter *Scylla* fell in Love with *Minos*, who beſieged her Father in *Megara*; and cutting off her Father's *Golden Lock*, ſhe gave it to *Minos*, and with it the Kingdom; whereupon *Niſus* died with Grief, and was turn'd into an *Hawk*, and his Daughter into a *Lark*. Whence the *Antipathy* between theſe two Birds ever ſince. The whole of this Fable is undoubtedly grounded on the *Scripture Relation* of *Sampſon* and his Miſtreſs *Delilah*; with a little Variation allowable to the Poets.

The Fable of Niſus *and his Daughter, the ſame with* Sampſon *and* Delilah.

NARCISSUS was feign'd to be the Son of the River *Cephiſſus* and the Nymph *Liriope*. *Tireſias* being asked concerning the Child's *Fortune* at his Birth, anſwer'd, He ſhould live ſo long as he did not ſee himſelf. He proved ſo *beautiful a Youth* that ſeveral Nymphs fell in Love with him, but he ſlighted them all. Afterwards ſeeing his own Face in a Spring, he ſo fell in Love with himſelf, that he pin'd away, and dying was chang'd into a Flower of his *Latin* Name, the *Daffodilly*. By *Narciſſus* is meant the *Proud* and *Scornful Perſon*, who deſpiſeth every body, eſpecially (Nymphs) *modeſt*, *ſincere*, and *humble Perſons*; and is ſo full of *Philauty*, *Self-love*, *Self-conceit*, that he is enamour'd with his own Shadow; but never fails to die in the *Eſteem* of all wiſe Men, who look on him only as a *gaudy*, *ſhowy Triſle*, a mere *Daffodilly*.

The Fable of Narciſſus *moralized.*

The Emblem of a Proud and Scornful Man.

Midas *the Emblem of a preſumptuous, indiſcrete, and covetous Man.*

'Tis ſtoried of *Midas* (a rich King of *Phrygia*) that he requeſted of *Bacchus*, his Gueſt, that all he touch'd might be *Gold*; 'twas granted, and he ſoon turn'd his Houſes and whole Mountains into Gold; and touching his *Victuals* and *Drink*, he turn'd that into Gold too. And now ſeeing his Folly, he deſired to have his Wiſh revok'd, and he was bid to waſh himſelf in the River *Pactolus*, whereupon he became the ſame as he was before, but the River to this Day produces *Golden Sand*. By this Fable is very pertinently ſet forth the *Folly* of Man, in depending upon his own *Wiſdom* and *Sufficiency*, and ſetting light by the *Divine Providence* and *Aſſiſtance*. For, if we were left to ourſelves, we ſhould (*Midas* like) be craving the Things which would be moſt *pernicious*, and ſoon bring us to repent thereof. From hence too we learn, that God very often brings Men to a Sight of their Folly, and to admire his *Wiſdom* and *Goodneſs*, by permitting them the *Experience* of their *own Choice* a while.

Momus, *the Mythologic Character of a Carping Critic.*

MOMUS is the laſt *Mythologic* Character I ſhall conſider the Moral of: His Story has been related, where we find indeed that he was reckon'd a *Deity*, but was dignified with no other Epithet than that of the *Carping God*. He was ſaid to be the Son of *Night* and *Sleep*, becauſe of his dull and gloomy Mind, which render'd him very imprudent, injudicious, and conſequently unfit for a *Judge* or *Critic*. He was call'd *Stygian Momus*, becauſe he was hated by the Gods and Men. He did nothing himſelf, but ſpent all his Time in *reprehending*, *cavilling* with, and *depreciating* the Works and Labours of the Gods and Men. From all which Characters, the Moral of *Momus* eaſily diſplays itſelf in the Perſon of an *ill-natured*, *ignorant*, *envious*, *carping Critic*; who, as he is generally too idle and deficient in his Intellects to do any thing of Merit himſelf, ſo he (ambitious notwithſtanding) has no other Way to diſtinguiſh himſelf, and ſeem conſiderable, but by defaming, calumniating, and undervaluing the Works and Perſons of other Men. He is conſcious of his own *Imbecillity* and *Incapacity* to merit Praiſe and genuine Honour; and envying others the Happineſs, he does all he can to deprive them of it, and make the World believe they deſerve

deſerve it not. But how *ſtupid* and *vain*, as well as proud and envious, muſt ſuch a Wretch as *Momus* be, to think that a Man's Character for Learning and Merit is to be eſtimated and determined by his ungenerous, ignorant and malicious Verdict! Does not this great Affair depend on the Judgment of the *Wiſe* and *Prudent*, who are well acquainted with the Imperfections of human Nature, and are therefore to be reputed the *only equitable Judges* of the Merit of human Productions? Such will make a generous and reaſonable Allowance for Frailties and Defects, where the Cauſe and Deſign is good and honourable,

Of LANGUAGE *in general*; *of* GRAMMAR *in general*; *and particularly that of the* ENGLISH TONGUE.

Language, what.

LANGUAGE is a Set or Collection of *Sounds* or *Notes* made uſe of by any Nation or People to expreſs the *Ideas* of their *Minds*, and by this means to render their *Thoughts* and *Conceptions* intelligible to each other. The *Actual Communication* of our *Sentiments* to others in this Manner, is call'd *Speech*, or *Speaking*.

Speech.

The component Parts of Language.

THE *component Parts* of a *Language* are *different Kinds of Sounds*; of which ſome are *Simple*, and others variouſly *compounded*. The *Marks* whereby the *Simple Sounds* are expreſſed to the Sight, are called *Letters* or *Characters*; and the various *Aſſemblage* and *Combinations* of *Letters* make the *Expreſſions* of *Compound Sounds*; which again are of *divers Sorts*, as *Syllables*, *Words*, and *Phraſes*; of which more by and by.

Letters.

Words, &c.

Alphabet.

IT is cuſtomary among all People to make an orderly *Arrangement* of all the *Letters* uſed in their *Language*, which we call by the *Greek* Name *Alphabet*; as alſo of all the Words and Terms which compoſe the ſame: And ſuch a *Collection* or *Catalogue* of Words is by Us called a *Dictionary*, and for the *learned Languages*, a *Lexicon*. And the Art which teaches how the Letters and Words of any Language ought to be *ſet* and *combin'd* together for *proper Speech*, is what we call *Grammar*.

Dictionary or Lexicon.

Grammar.

IN

In *Language* we are to consider two main *Things*, viz. (1.) The *Idiom*, *Phraseology*, or *Manner* of *Expression*, which is peculiar to that Nation, and different from what is used by any other. Thus when we say, **All that came out of his* Loins, the *Hebrews* say, *out of his Thigh*. We say, *A Person is Ten Years old*; the *Hebrew Idiom* is, *He is the Son of Ten Years*. We say, An *Husband-man*; they, A *Man of the Earth*, &c. (2.) The *second* Thing is *Dialect*, which is the same in the main as the *Original Language*, but differs therefrom in the *Ending* or *Termination* of Words, for the most part; the *Change* of many entire Words, or the *Addition* or *Leaving out* proper Letters in the *Syllables* of Words. So the Name *God* in the *Standard Greek* is *Theos*, but in the *Doric Dialect* it is *Seos*; thus for *Glossa*, a Tongue; the *Attic Dialect* says *Glotta*; and thus in others. *Idiom of Speech, what.* * Gen. xlvi. 26. *Dialect, what.*

The Relation between the *Standard* or *Original Language*, and the *Dialects* which proceed from it, is similar to that between the *Mother Parent* and her *Children*; and on this Account it is, that those *Original Languages* are commonly call'd *Mother Tongues*. Of these *Parent* or *Mother Languages*, there are several in the World; some reckon *Eleven*, some count more. Among them all, there are *Four* which deserve more Notice than the rest, and they are, (1.) The *Hebrew*; (2.) The *Greek*; (3.) The *Latin*; (4.) And the *Old Gothic*. The others are less considerable. *Mother Tongues, what.*

The *Hebrew Tongue* is the most *antient* in the World, at least that are known to the *Europeans*. From it sprang a very *august* and *flourishing Progeny* of *Dialects*, *viz.* the *Chaldee*, the *Syriac*, the *Arabic*, the *Samaritan*, and the *Ethiopic*. The two first differ chiefly in the *Characters*, there being a near *Affinity* in the Form of the Words, and Texture of the *Tongues* themselves. The *Arabic* is a most copious Tongue, having a thousand different Words for a *Sword*, five hundred for a *Lion*, and two hundred for a *Serpent*. The chief *Properties* of these *Oriental Tongues* are, (1.) The *Primitive Words*, or the *Themes* of their *Verbs*, in general, consist of but *three Letters*, and some few of *four*. (2.) That these *Letters* are all *Consonants*, as PKD, BRZL, &c. (3.) That the *Of the Hebrew and its Dialects.* *The Properties of the Eastern Tongues.*

the *Vowels* are moſtly *Points* placed under the ſaid *Conſonants* in the *Theme*, as P K D, that is, PAKAD, he *viſited*; B R Z L, that is, BARZEL, *Iron*. (4.) That they diſtinguiſh the *Maſculine* and *Feminine Genders* in *Verbs* as well as *Nouns*, by *different Terminations*. (5.) That the *Orientals* write and read from the *Right Hand* to the *Left*, contrary to the *Europeans*.

Of the Greek *Language and its ſeveral Dialects.*

THE *Greek Language* is the next *Mother Tongue*, and in the *Texture* of its Words is as *compound* as the *Hebrew* is *ſimple*; on which Account it obtains a wonderful *Variety* and *Copiouſneſs* of Words, beyond any other Language. The principal *Dialects* of this Tongue are, (1.) The *Attic*, which was ſpoken at *Athens*, and the Country round, between *Achaia* and *Macedonia*. (2.) The *Ionic*, uſed in *Ionia*, a Country in Leſſer *Aſia*, between *Caria* and *Æolis*, inhabited by a *Greek Colony* in former times. (3.) *Doric*, ſpoken by the *Dorians*, a People inhabiting a Part of *Achaia*. (4.) *Æolic*, uſed by the *Æolians*, who lived in that Part of *Aſia* between *Ionia* and *Troas*, near the *Helleſpont*.

Of the Latin Tongue, and its Dialects.

THE *Latin* is that *Mother Tongue*, which of all others can boaſt the Nobleſt *Progeny* of Living and Polite *Dialects*; for ſhe gave Birth to the *Italian*, the *French*, the *Spaniſh*, the *Portugueze*, and a good Part of the *Engliſh*, and is herſelf ſtill in Being; and more univerſally embraced than any other ever was, or, perhaps, ever will be. To give one Inſtance of the *different Utterance* between this *great Parent* and her ſeveral Daughters, take that of *Royal Dignity*, which by the *Mother Tongue* herſelf (the *Latin*) was call'd *Majeſtas*; but by the *Italian*, *Maeſtà*; by the *Spaniſh*, *Mageſtad*; by the *French*, *Majeſté*; and by the *Engliſh*, *Majeſty*.

An Inſtance of their Difference.

Of the Gothic, *and its Dialects.*

FROM the antient *Gothic Tongue* proceeded the two great Branches, the *Teutonic* and *Saxon* Languages; from whence all the *Northern Tongues*, as ſo many *Grand-children*, had their Being; as the *Swediſh*, *Daniſh*, *Norwegian*, High and Low *Dutch*, *Flemiſh*, *Scots*, and *Engliſh*. Every one knows, that the Bulk of our *Language* is derived from the two great *Sources* of the *Teutonic* and *Saxon*. Thus the *Saxons* ſaid, *Fæder*, *Suna*,

Suna, Hus, Biſceop-ric, Weorth-ſcype, Godleas, Godlicneſſe, &c. from whence the *Engliſh* ſay, *Father, Son, Houſe, Biſhoprick, Worſhip, Godleſs, Godlineſs.*

To theſe may be added the *Sclavonic*, another very conſiderable *Mother Tongue*, as being of great *Antiquity*, and very *large Extent* in the North-eaſtern Parts of *Europe*; the Tongues of *Ruſſia, Poland, Hungary*, &c. are *Dialects* of it. The Old *Britiſh* or *Welch*, and the *Iriſh*, which alſo the Highland *Scots* ſpeak, are reckon'd among the *Mother Tongues*; but have nothing in them worth Notice. And thus much for the Languages in general: I ſhall now treat of our own Language in particular; and firſt of its *Compoſition.*

Of the Sclavonic, *and its Dialects.*

THE antient Speech of this Iſland was the *Gaulic*, or old *French*, as being (in all probability) firſt peopled from *Gallia*, or antient *France*. But, a little before our Saviour's Time, *Julius Cæſar* having invaded and ſubdued the *Britons*; and in *Claudius*'s Time, and ſoon after, a *Roman Colony* being planted here, *Britain* became a *Roman Province*; and the *Latin Language*, which the *Romans* then ſpoke, was introduced and mix'd with the *Britiſh*; though it never could ſuppreſs it. Afterwards, the *Roman Legions* being call'd home, the *Scots* and *Picts* (the *Inhabitants of North-Britain*) took the Opportunity to attack and harraſs the Northern Parts of *England*; upon which King *Vortigern*, about the Year 440, call'd to his Aſſiſtance the *Saxons*, a great and powerful People in the North Parts of *Germany*, who with their Neighbours the *Angles, Teutones*, &c. came over, under the Conduct of *Hengiſt* and *Horſa*, who, ſubduing the *Picts* and *Scots*, were rewarded for their Service, firſt with the *Iſle* of *Thanet*, and after with the whole *County* of *Kent*, which they govern'd about 350 Years; but growing powerful, they quarrelled with, and by Degrees diſpoſſeſſed the Inhabitants of all the Country on this Side the *Severn*, and divided it among themſelves into Seven Kingdoms, call'd the *Saxon Heptarchy*. Thus they deſtroy'd the *Britiſh Tongue*, together with its Inhabitants (excepting ſome who retir'd over the Mountains of *Wales*, and carried with them their Language) and their own Language became the general Language of the *Iſland*, and thus continued

A ſhort Account of the Engliſh *Language from its firſt to its preſent State.*

Britain *conquer'd by* Cæſar.

Invaded by the Picts *and* Scots.

The Saxons, *&c. arrive under* Hengiſt *and* Horſa.

They eſtabliſh their Heptarchy.

The Danes *Invaſion and Settlement.*

till about the Year 800. Then the *Danes* infeſted the *North* and *Eaſt* Parts of *England*, and obtaining *Footing*, they at laſt arrived to the ſole Government of it, in about two hundred Years; and ſo the antient Speech became tinctur'd alſo with the *Daniſh Language*. But their Rule laſting only twenty-ſix Years, made not ſo great Alteration in the *Anglo-Saxon*, as the next Revolution, which was by *William* the Conqueror, Duke of *Normandy* in *France*; who came over into *England*, vanquiſh'd the *Danes*, and ſubdued the *whole Land*; and as a Monument of their Conqueſt, the *Normans* endeavour'd to make their Language as generally receiv'd as their Commands; and thus compleated the Mixture, or rather the Medley of Language in *Great Britain*.

The whole Land ſubdu'd by William *the Conqueror.*

The Engliſh *Tongue a Medley of ſeveral others.*

THE *Engliſh* Tongue, ſuch as it is at this Day, which eighteen hundred Years ago was the pure *Britiſh* or *Welch*, is now a Mixture of (1.) A little *Britiſh*; (2.) a great deal of *Latin*; (3.) a yet far greater Part of *Anglo-Saxon*, and *Teutonic*; (4.) ſome few Strictures of *Daniſh*; and (5.) an Abundance of *Norman French*. But ſince thoſe antient Times, we have, by means of *Learning*, *Commerce*, &c. received very great Improvements from the *Greek*, *Latin*, Modern *French*, *Italian*, *Dutch*; and many *proper Names* of Men, Places and Things, from the *Hebrew*, *Syriac*, *Arabic*, and other *Eaſtern Tongues*.

The Engliſh *Tongue is the Quinteſſence of others.*

BUT notwithſtanding our Language is thus a Mixture or Compound of ſuch heterogeneous Ingredients; yet it muſt be withal conſider'd, that only the choice and valuable Parts of other Tongues have been ſelected and incorporated together in the Body of our own, which therefore may be look'd upon as the *Quinteſſence* of *various Tongues*; and by *enfranchiſing* and *indenizening* foreign Words and Terms of Arts and Sciences, it is indeed become a very copious, pithy, ſignificant and learned Language; abounding with all the *Flowers* of *Rhetoric*, capable of all the Delicacy, fine *Similes* and *Alluſions* of *Poetry*, and of ſupplying both the *Pulpit* and *Bar* with all the *Force* and *Energy* that *Speech* can pretend to.

The Engliſh *Tongue compar'd with*

IN fine, though it be not ſo ſacred as the *Hebrew*, ſo extenſive as the *Arabic*, nor quite ſo learned as the *Greek*; ſo neither is it ſo ſcanty as the *Hebrew*, ſo difficult

difficult and irregular as the *Arabic*, ſo *barbarous* as the *Iriſh*, ſo hard and unſounding as the *Welch*, ſo *uncouth* as the *Dutch*, nor ſo *effeminate* as the *French*; yet is it as *fluent* as the *Latin*, as *courteous* as the *Spaniſh*, as *courtlike* as the *French*, and as *amorous* and *ſounding* as the *Italian*; and is every way enrich'd and beautified with all the Ornaments and Decorations any Language is capable of, and fitly adapted to the *maſculine*, *curious* and *noble Genius* of the renowned People who uſe it. I proceed now to ſay ſomewhat of the *Grammar* thereof; and firſt of that Science in *General*. *others, and characteriz'd.*

GRAMMAR is defined to be, *The Art of expreſſing the Relation of Things by Words in Conſtruction, with due Accent in Speaking, and Orthography in Writing*, according to the Cuſtom of thoſe, whoſe Language we learn: Or, *Grammar* is the Art of Speaking and Writing truly. Of *Grammar* there be four Parts. (1.) *Orthography*, which treats of Letters. (2.) *Proſody*, of *Syllables*, and due Pronunciation. (3.) *Etymology*, or *Analogy*, which treats of *Words*. And (4.) *Syntaxis*, of *Sentences*, or due *Conſtruction* of Words. *Grammar defin'd.* *Its four Parts, Orthography, Proſody, Analogy, Syntax.*

ORTHOGRAPHY is that Part of *Grammar* which teaches the Nature, Difference, Sound, Writing, and Joining of Letters into *Syllables* and *Words*. *Letters* are the firſt *Elements* of *Speech*, as being individual articulate Voices or Sounds. *Orthography, what.*

LETTERS are divided into *Vowels* and *Conſonants*. Vowels are thoſe *Letters*, which, of themſelves, make a *full* and *perfect Sound*, and are five, *viz. a, e, i, o, u*; and to theſe may be added the Greek *y*. The other *Letters* of the *Alphabet* are Conſonants. Of theſe Vowels ariſe *Of Vowels and Conſonants.*

Diphthongs, which are compoſed of *two Vowels* in one *Syllable*; and they are (1.) *Proper Diphthongs* when both the Vowels are pronounced; as *ai*, in *fair*; *au*, in *laud*; *ee*, in *Seed*; *oi*, in *void*; *oo*, in *Food*; and *ou*, in *Houſe*. (2.) *Improper Diphthongs*, wherein the Sound of one Vowel is heard alone, and the other ſuppreſs'd; as *ea*, in *Tea*; *ie*, in *Fiend*; *eu*, in *Eunuch*; and ſuch other. The Meeting of *three Vowels* in one *Syllable* is call'd a *Triphthong*; as *eau*, in *Beauty*; *ieu*, in *lieu*, *adieu*, &c. *Diphthongs, what. Proper. Improper. Triphthongs.*

THE

Conſonants divided into Mutes.

THE *Conſonants* are divided into *Mutes* and *Semi-vowels*. The *Mutes* are ſo call'd, becauſe they can't be pronounced of themſelves without a *Vowel*; they are *Nine*, as *b*, *c*, *d*, *g*, *p*, *q*, *t*, *j*, *v*; which are ſounded, *bee*, *cee*, *dee*, &c. The *Semi-vowels* are ſuch as yield an imperfect Sound without the help of a *Vowel*; as *f*, *l*, *m*, *n*, *r*, *s*, *x*, *z*. Of which theſe four, *l*, *m*, *n*, *r*, are call'd *Liquids*, becauſe they eaſily and ſmoothly *flow* away after a *Mute* in a *Syllable*, as in *glide*, *ſmile*, *gnaw*, *brine*; but they cannot be ſounded in the ſame *Syllable before* a *Mute* when a Vowel follows; as *rpo*, *ldi*, &c. Conſonants are alſo conſider'd as *Single*, as *b*, *c*, *d*, &c. or *Double*, as *x* and *z*; for *x* is compoſed of *cs*; as *Vex* ſounds the ſame as *Vecs*; *Wax*, as *Wacs*, &c. Alſo *z* is made of *ds*; as *blaze* ſounds *bladſe* nearly, the *d* being turned off in a ſtrong *Sibilation* or *Hiſſing*.

Semi-vowels and Liquids.

Single and Double.

Proſody, what.

PROSODY is the ſecond Part of *Grammar*, which treats of *Syllables* and their due *Diviſion* and *Pronunciation* in Words; and in reſpect of this latter Part, 'tis call'd *Orthoepy*, or the *right ſpeaking* or *expreſſing* of *Words* and *Syllables*. Moreover, *Proſody* alſo gives Rules for the Quantity of Voice, and due *Accenting* of *Syllables* in Words. As to the *former*, it properly relates to *Poetry*; the reſt will be here conſider'd in Order.

Orthoepy, what.

A Syllable, what.

A *Syllable* is a *compleat Sound* or *Utterance* of *one* or *more Letters*, in one *Breath* or *Toue*; in which there muſt be always *one* or *more Vowels*; as *a*, *ve*, *nue*; *o*, *ri*, *ent*: Theſe make the larger *Members* of *Words*; as *a-ve-nue*, *o-ri-ent*. And the Number of *Syllables* is various in Words; from *One*, as *I*; to *Eleven*, as in this long Word, *Ho-no-ri-fi-ca-bi-li-tu-di-ni-ty*. There are generally as many *Syllables* as *Vowels* or *Diphthongs* in a Word, excepting the final *e*: As *e-ver*, *e-ve-ry*, *de-face*, *tranſ-late*, *par-boil*, *blood-hound*, *a-dieu*, &c.

The principal Rules concerning the Orthoepy and Orthography, or the right pronouncing and writing

As to the *Orthoepy* or duly pronouncing *Letters* and *Syllables* in Words, take the *following Rules*. (1.) The final *e* lengthens the Vowel foregoing; as *can*, *cane*; *bed*, *bede*; *pip*, *pipe*; *rob*, *robe*; *tun*, *tune*. (2.) Words in *re* ſound the *e* before the *r*, like *u*; as *Fire*, *Fi-ur*; *Deſire*, *Deſi-ur*; *Rere*, *Re-ur*; *Maſſacre*, *Maſſac-ur*; *Maugre*, *Maug-ur*. (3.) The *Latin* improper

proper *Diphthongs æ*, *œ*, are ſounded *e*; as *Cæſar*, *Phœbus*, *Ætna*, *OEconomy*, are pronounced *Ceſar*, *Phebus*, *Etna*, *Economy*. (4.) Alſo the *Engliſh Diphthong eo* often ſounds only the *e*; as *Yeoman*, *Feoffee*, *Jeopardy*, *Leopard*; and like *ee* in *People*, *Feodary*: And *eu* at the beginning of Words ſounds only *u*; as *Eunuch*, *Eulogy*, *Euchariſt*; ſo does *ue* at the End, as *due*, *true*, *purſue*. (5.) *U* makes the *g* ſound hard and lengthens the *Syllable* in *Vogue*, *Prologue*, *Epilogue*, *Dialogue*. (6.) *C* ſounds hard like *k* before *a*, *o*, *u*, *l*, *r*; as *Cat*, *Coſt*, *Cup*, *Clear*, *Crow*: before *e*, *i*, and *y*, like *s*; as *City*, *Cell*, *Cypreſs*. (7.) *Ch* is ſounded like *k*, in *Chart*, *Chord*, *Character*. (8.) The *Syllables ti* and *ci*, if follow'd by a Vowel, ſound like *ſi*, or *ſhi*; as in *Fiction*, *Condition*, *Logician*, *Muſician*, &c. (9.) *K* begins Words of a hard Sound before *i*, *e*, and *n*; as *keep*, *kill*, *know*; but before *a*, *o*, *u*, we write *c*; as *call*, *cold*, *cup*. (10.) *G* has a hard Sound before *a*, *o*, *u*; as *Gall*, *Gold*, *Guilt*, and in *Gheſs* for *Gueſs*. (11.) In Words where *cc* is found between *i*, the firſt *c* is hard, the other ſoft like *ſ*, as the Word *Siccity* ſounds *Sikſity*. (12.) When *gg* occurs, they are both hard, as *dogged*, *rugged*. (13.) In Words ending in *ck*, 'tis moſt polite to omit the *k*; as for *Logick*, *Muſick*, *Phyſick*, ſhould be wrote *Logic*, *Muſic*, *Phyſic*. (14.) The ſoft Sound of *G* before *a*, *o*, *u*, at the beginning of Words is expreſs'd by *j* conſonant, as *Jail*, *Jolly*, *Julep*; and *Jentleman* is truer Orthography than *Gentleman*. (15.) The Sound of *f*, in *Greek* Words, muſt be wrote with *ph*; as *Phyſic*, *Philoſophy*, *Philip*, *Phlegm*, &c. (16.) The Syllable *que* at the End, is ſounded like *k*; as *antique*, *pique*, *barque*; and *q* is never written without *u* after it. (17.) In ſome or moſt *French* Words, *ch* is ſounded like *ſh*; as *Machine*, *Chevalier*, *Capuchin*, *Chaiſe*, are ſounded *Maſheen*, *Shevalier*, *Capuſheen*, *Shaize*. (18.) The final *e* makes a diſtinct Syllable in Foreign Words which end therein, as *Mam-re*, *Eu-ni-ce*, *Si-mi-le*. *Letters and Syllables in Words.*

In *Diaſtaſis*, or the Diviſion of Words into Syllables, obſerve the following Rules. (1.) When a ſingle *Conſonant* comes between two Vowels, 'tis join'd with the latter in Spelling, as *Na-ture*, *e-ve-ry*, *di-li-gent*; except *x*, which is join'd with the firſt, as *The Rules of Diaſtaſis or Spelling.*

as *Lex-i-con*, *Ox-en*. (2.) But *compound Words* muſt be divided back into their component Parts; as *un-armed*, *un-uſual*, *ſafe-ty*, *in-ure*, *ad-orn*, *name-leſs*, &c. (3.) All Terminations muſt be ſeparated, as *deliver-ed*, *deliver-edſt*, *deliver-eth*, *deliver-eſt*, *deliver-ing*, *deliver-er*, *deliver-ance*, &c. (4.) All thoſe *Conſonants* which can begin a *Word*, may begin a *Syllable* together; and ſuch are *bl*, *cl*, *fl*, *gl*, *pl*, *ſl*; *br*, *cr*, *dr*, *fr*, *gr*, *pr*, *tr*, *wr*; *ch*, *dw*, *gn*, *ſn*, *ſp*, *ſq*; *kn*, *qu*, *ſc*, *ſh*, *ſm*, *ſt*, *ſw*, *th*, *tw*, *wh*; alſo theſe *treble Conſonants*; *ſch*, *ſcr*, *ſhr*, *ſkr*, *ſpr*, *ſpl*, *ſtr*, *thr*, *thw*. (5.) A *Mute* and *Liquid* go together in the laſt Syllable; as *Cra-dle*, *Ti-tle*, *Fa-ble*, *mau-gre*, &c. (6.) If two *Conſonants* meet that can't begin a Word, they muſt be divided; as *ſel-dom*, *num-ber*, *pop-py*, *ac-cord*, *ar-dent*, &c. (7.) When two Vowels meet, and both are diſtinctly ſounded, they muſt be divided; as *re-enter*, *mu-tu-al*, *La-o-di-ce-a*, *di-ur-nal*, &c.

Of Accenting Words, and the principal Rules directing thereto.

THE true *Accenting* of *Words* is a difficult thing, as it is a *riſing* or *falling* of the *Voice* above or below its uſual Tone: It is an Art ſomewhat *arbitrary*, and of which we have but little Uſe, and know ſcarce any thing but by the Laws of *Cuſtom*. However the following *Directions* may be of Service in this Affair. (1.) When a Word is both the *Name* of a Thing, and *ſignifies Action*, the firſt *Syllable* is accented in the former Caſe, but the laſt in the latter; as in the Name itſelf *áccent*; but *accént*, to raiſe or fall the Voice; *Cónteſt*, a Diſpute; to *contéſt*, to diſpute; *Récord*, a Writing; to *recórd*, to commit to Writing, &c. (2.) When any *Ending*, as *-able*, *-ful*, *-iſh*, &c. is join'd to any *Monoſyllable*, the firſt *Syllable* is long or accented; as *Peáce-able*, *ſinful*, *ſelf-iſh*, *toíl-ſome*, *gód-ly*, &c. (3.) Words of two *Syllables* ending in *er*, *or*, *ure*, are accented on the firſt generally; as *énter*, *ráther*, *Hónor* or *Hónour*, *vénture*, &c. (4.) When a Word obſcurely ends in *-le* or *-en*, the Accent is on the firſt *Syllable*; as *Tróuble*, *Gárden*. (5.) When Particles are compounded with Words of one *Syllable*, they lengthen the Word; as *allúre*, *collégue*, *pollúte*, *refér*, *defér*; except *Cónduit*, *pérfect*, *Prélate*, and ſome others. (6.) If an *Ending* be added to a Word of two Syllables, the Syllable that was firſt long continues ſo, as *Préfit*, *Préfitable*; except *Protéſt*,

eſt, *Proteſtant*. (7.) In Words of more than *two Syllables*, the Accent is generally on the third Vowel from the laſt; as *Salvátion*, *Damnátion*, *Fidélity*, &c. Except (8.) when the Vowel is long by *Poſition*, i. e. when ſet before two or more *Conſonants*, and bears *hard* upon them, then it is long; as *abúndance*, *accompliſh*, *illúſtrate*, *Horizón*, &c. (9.) *Diphthongs* and *Triphthongs* are moſtly long, as *embróider*, *repróof*, *rejóice*, *Recéipt*, *Béauty*, *adiéu*, except *Lieuténant*, &c. (10.) In foreign Words, the Accent lies on that Vowel, which, in the Original, was a *Diphthong*, as *Daríus*, *Encómium*, *Eclípſis*, *Eccopé*, *équal*, &c. But to this Rule there are ſeveral Exceptions. Theſe are the principal Rules both for *Accent* and *Quantity* in the *Engliſh* Tongue.

Etymology or Analogy, what.

ETYMOLOGY or *ANALOGY* is the *third* and moſt conſiderable Part of *Grammar*, as it treats of the *Nature*, *Kinds*, and various *Accidents* and *Affections* of Words, which compoſe the Body or Subſtance of a Language.

Of Words, and the Eight Parts of Speech.

WORDS are compoſed (as aforeſaid) of *one* or *more* Syllables, by the Sound whereof we convey our Sentiments to others, and by this Means Men are render'd *converſable* or *ſocial* Beings. Of Words, in every Speech, there are reckon'd eight ſeveral Sorts, *viz.* (1.) The *Noun*, or Name; (2.) *Pronoun*, or *perſonal* Name; (3.) *Verb*, the Word ſignifying *Action* or *Paſſion*; (4.) *Participle*; (5.) *Adverb*; (6.) *Conjunction*; (7.) *Prepoſition*; (8.) *Interjection*. Theſe are call'd the Eight Parts of Speech; of all which in their Order.

The Accidents of Nouns.

A *Noun* is the *Name* of a *Thing*, abſolutely, and without Regard to *Perſon*, *Time* or *Place*. Of *Nouns* there are in *Engliſh* the following *Accidents*, (1.) *Species*; (2.) *Figure*; (3.) *Quality*; (4.) *Number*; (5.) *Perſon*; (6.) *Gender*; (7.) *Caſe*; and (8.) *Compariſon*.

The Species of Nouns.

Species of *Nouns* I conſider as *fourfold*; (1.) *Primitive*, ſuch as are themſelves *Original*, as *Man*, *God*. Under this Head are reckon'd *Interrogatives*, as what? who? which? *Redditives*, as ſuch, this, that. *Collectives*, as the People, the Crowd, the Flock, the Herd. *Numeral* Nouns, as *Cardinals* one, two, three, &c. *Ordinals*, as firſt, ſecond, third. *Partitives*,

Primitives.

tives, as whoever, any, either, neither. *Univerſals*, as all, every one, none, nobody. *Particulars*, as ſome one, any one, each. (2.) *Derivative*, as *human*, *Woman*, *Godlike*. Under this Head are reckon'd *Verbals*, as *Reading*, *Hearing*, *Offering*. *Participials*, as *obedient*, *apparent*, *eligible*, *facile*, *demonſtrative*. *Gentiles*, as *Greek*, *Latin*, *German*, *Chineſe*, *Engliſh*. *Patronymics*, as *Hebrews*, *Iſraelites*, *Iſhmaelites*, *Korathites*. *Poſſeſſives*, as *ſervile*, *regal*, *paternal*. *Local Nouns*, as *rural*, *marine*, *Oxonian*, *Pariſian*. *Material Nouns*, as *Wooden*, *Stony*, *Aſhen*. (3.) *Subſtantive Nouns* are ſuch as regard the *Subſtance* of Things; and are *proper* to *Individuals*, as *Plato*, *Socrates*, *Jeſus*, *John*; or *Appellative*, which agree to *many*; as *Man*, *Stone*, *Fiſh*, *Fowl*, *Beaſt*, *Juſtice*, *Goodneſs*. (4.) *Adjective Nouns*, ſuch as are always join'd with *Subſtantives*, and ſhew their *Qualities* and *Affections*, as *good*, *bad*, *high*, *low*, *quick*, *gentle*, *hard*, *ſoft*, *white*, *black*. To a *Subſtantive* you cannot add the Word *Thing*, but to any *Adjective* you may, as *black Thing*, *fine Thing*, &c.

Derivatives.

Subſtantives.

Adjectives.

The Figure of Nouns.

THE *Figure* of *Nouns* is threefold, *Simple*, *Compound*, and *Decompound*; as *ſoluble*, *reſolvable*, *irreſoluble*; *paſſionate*, *compaſſionate*, *incompaſſionate*.

The Quality of Nouns.

THE *Quality* of *Nouns* is twofold, *Proper* and *Appellative*, both which were conſider'd under the *Subſtantives* above.

The Numbers of Nouns.

Singular.

Plural.

The *Numbers* of *Nouns* are two, *viz.* (1.) *Singular*, which ſpeaks only of *one Thing*; as *Father*, a *Stone*, a *Man*, a *Face*, an *Ox*, an *Index*. (2.) The *Plural*, which ſpeaks of *more* than *one*, or *many*; as *Fathers*, *Stones*, *Men*, *Faces*, *Oxen*, *Indices*; where you obſerve great *Irregularity* in forming the *Plural* from the *Singular*; though for the moſt Part 'tis done by adding *s* to the Singular; as *Field*, *Fields*; *Hat*, *Hats*; *Tree*, *Trees*, &c. But if the Singular ends in *s*, *ſe*, *ze*, *x*, *ſh*, *ce*, *ch*, *ge*, the Plural requires *es*; as *Laſs*, *Laſſes*; *Horſe*, *Horſes*; *Maze*, *Mazes*; *Fox*, *Foxes*; *Fiſh*, *Fiſhes*; *Prince*, *Princes*; *Tench*, *Tenches*; *Page*, *Pages*. Several Names have no *Singular*, as *Annals*, *Aſhes*, *Alps*, *Bowels*, *Bellows*, *Breeches*, *Sciſſars*, &c. and ſome have no *Plural Number*; as *John*, *Wheat*, *Air*, *Blood*, *Beer*, *Lead*, *Braſs*, *Prudence*, *Pride*, *Hunger*, *Soot*, *Vulgar*, &c.

THE

THE Perſon of *Nouns* will be conſider'd under the ſecond Part of Speech, *Pronouns*; as moſt properly belonging thereto. The *Gender* of *Nouns* is twofold, (1.) *Maſculine*, which reſpects the *Male*, or *He-kind*; as *Man*, *Horſe*, *Dog*; and (2.) *Feminine*, which relates to the *Female* Part of *Animals*, or the *She-kind*; as *Woman*, *Mare*, *Bitch*. Theſe are all the Genders the *Engliſh* obſerve, and indeed all that really are in Nature; for what the *Latin* calls the *Neuter*, the *Common*, the *Doubtful*, the *Epicene*, are not diſtinct Genders from the *Maſculine* and *Feminine*, but only expreſs ſome *Quality* or *Affection* of them, as is plain to the intelligent Reader. In ſhort, all *inanimate Beings* have properly no *Gender*, becauſe no *Diſtinction* of *Sexes*, or rather *no Sex* at all; and therefore when we ſpeak of them, inſtead of the *Generical* Particles *He* or *She*, we uſe the neutral Particle *it*; as, *it* was hard, *it* was high, *it* felt cold, *&c.* The *Engliſh* Tongue generally expreſſes different Sexes by different *Terminations* of the ſame Word; as *Poet*, *Poeteſs*; *Actor*, *Actreſs*; *Emperor*, *Empreſs*; *Count*, *Counteſs*; *Executor*, *Executrix*; *Adminiſtrator*, *Adminiſtratrix*.

The Genders of Nouns.
Maſculine.
Feminine.

The Neuter, Common and Epicene Genders are not properly Genders.

THE *Caſes* of Nouns are generally reckon'd *Six*; (1.) The *Nominative*, when the Name is directly and abſolutely put with the Prepoſition *a*, *the*; as *a King*, *the King*, &c. (2.) The *Genitive*, which has the Sign *of*, as *of a King*. (3.) The *Dative*, known by the Sign *to*, as *to the King*. (4.) The *Accuſative*, which cometh after the *Verb* with the Particle *the*; as, I *read the Book*. (5.) The *Vocative* is that wherein we call or ſpeak to a Perſon; as, *O King! Thou Villain!* (6.) The *Ablative Caſe* is known by ſome of theſe Prepoſitions, *in*, *with*, *through*, *for*, *from*, *by*, *than*, &c. As, *from* the Houſe, *in* the Heart, *&c.* I ſhall ſubjoin an Example of Expreſſions, wherein all the ſix Caſes of the Word *Book* are uſed in the *Singular* and *Plural Number*.

The Caſes of Nouns are Six.
The Nominative.
Genitive.
Dative.
Accuſative.
Vocative.
Ablative.

Singularly.	*Plurally.*
Nom. There was *a Book.*	There lay *the Books.*
Gen. The Price *of the Book.*	The Number *of the Books.*
Dat. He added *to the Book.*	It gave Splendor *to the Books.*
Accuſ. He read *the Book.*	They print many *Books.*
Voc. The Poet ſaid, *Go, O Book.*	He ſaid, *O choice Books!*
Abl. He took it *from a Book.*	He got a great Name *by Books.*

An Example of an Engliſh *Noun declin'd.*

THE *Latin*, *Greek*, &c. form these Cases by *different Endings* of Words, which they call *Declining of Nouns*; and of these *Declensions* they have five several Sorts, not at all to our Purpose to take any Notice of here.

The Comparison of Adjectives, what.

THE *Comparison* of *Nouns Adjectives* is that whereby the *Quality* of Things is *relatively consider'd*; and is therefore said to be of *three Degrees*, viz. (1.) The *Three Degrees.* *Positive Degree*, which indeed is not properly any *Positive.* *Degree* of *Comparison*, because it considers not the Quality of Things comparatively with others, but simply and absolutely as it is in its *first State*; as, *hard*, *soft*, *white*, *black*, &c. (2.) The *Comparative* *Comparative.* *Degree* is that which expresses the *Quality* of Things somewhat *increased* or *diminished*; and is form'd by adding *er* to the *Positive*; as, *harder*, *softer*, *whiter*, *Superlative.* *blacker*, &c. (3.) The *Superlative Degree* is that which expresses the *greatest Intensity*, or utmost Degree of the Quality of Things, and is form'd by adding *est* to the Positive; as, *hardest*, *softest*, *whitest*, *blackest*. But in many Adjectives there is great *Irregularity*, and entire new Words requir'd to express different Degrees; as, *good*, *better*, *best*; *bad*, *worse*, *worst*; *much*, *more*, *most*. Also we compare with the Words *more*, *most*, *very*, &c. As *large*, *more large*, *most* or *very large*, &c.

Pronouns how they differ from Nouns.

Pronouns are reckon'd the *Second Part* of *Speech*, though in reality they differ not from *Nouns*, save only that they *chiefly* and *primarily* signify *Persons*, and *secondarily Things*; so that *Pronouns* are only *personal Nouns* or *Names*, and so ought not to be made a distinct Part of Speech. Of *Pronouns* some be *Substantive* *Substantive and Adjective.* *and Adjective*, as *I*, *Thou*, *He*, *She*; others *Adjective*, as *mine*, *thine*, *his*, *hers*, *ours*, *theirs*, &c.

The Persons of Pronouns.

AGAIN, since in Discourse whatever is said, is spoke either of ourselves, to another, or of some third Person, 'tis necessary there be three Persons, which are in each Number as here represented.

The

The Perſons.	Before the Verb.		After the Verb.		With a Noun.		Without a Noun.	
	S.	P.	S.	P.	S.	P.	S.	P.
1ſt Perſ.	I	We	Me	Us	My	Our	Mine	Ours
2d Perſ.	Thou	Ye	Thee	You	Thy	Your	Thine	Yours
3d Perſ. *Maſc.*	He	They	Him	Them	His	Their	His	Theirs
3d Perſ. *Fem.*	She		Her		Her		Hers	
3d Perſ. *Neut.*	It		It		Its		Its	

THE Interrogatives *Who* for a *Perſon*, and *What* for a *Thing*, make *Whom* after the *Verb*, or in any *Caſe* but the *Nominative*, and the *Genitive Plural*, *Whoſe*. *This*, which refers to ſomewhat *near*, and *That* to ſomewhat *remote*, have in their Plural Number, *Theſe* and *Thoſe*; and thoſe who would write correct, ſhould never put *it's* for *'tis*, or *it is*; or ſay, *it's* a Fault, for *it is* a Fault.

Of the third Part of Speech, the Verb, and the ſeveral Sorts thereof;

THE next and moſt conſiderable Part of Speech is the *Verb*, which ſignifies *Being*, *Action*, or *ſuffering Action*; or it is that Word in a Sentence which expreſſes what is affirm'd or ſaid of Things; for which Reaſon Verbs are moſt properly call'd *Affirmations*. *Verbs* are divided into *Active* or *Paſſive*. The *Active Verb* denotes the doing ſome *Action*, as *I love*, *thou ſcorneſt*; the *Paſſive Verb* denotes *ſuffering* ſome *Action*; as *I am loved*, *thou art ſcorned*. Some diſtinguiſh the *Verb Active* into *Tranſitive* and *Intranſitive*: A *Tranſitive Verb* is that whoſe Action paſſeth on ſome other Thing; as, *he beats the Dog*. The *Intranſitive Verb* expreſſes only mere *Action* in the *Agent*; as, *he liveth*, *he walked*.

Active.

Paſſive.

Tranſitive.

Intranſitive.

The Conjugation of Verbs.

VERBS are *conjugated*, or varied by diverſe Terminations, according to the *Mood*, *Tenſe*, *Number*, and *Perſon* thereby implied and deſigned.

The Moods, what.

THE *Mood* of a Verb is that *peculiar Manner* in and by which its *Action* is expreſs'd; and of theſe *Moods* we may reckon *Four* in the *Engliſh Tongue*; as (1.) The *Indicative Mood*; which ſimply *indicates*, or ſheweth its *Action abſolutely*; as *I ſpeak*, *thou hearеſt*, *they walk*. (2.) The *Subjunctive Mood*; in which the Verb is *ſubjoin'd* to, or depends on ſome other Verb in the Sentence; as, You will be corrected, if you *play*. This *Mood* is generally reckon'd with two others, *viz.* The *Potential*, when beſides the mere *Affirmation*,

Indicative.

Subjunctive.

Potential.

firmation, the *Power*, *Liberty*, *Will*, &c. of the Agent is expreſs'd; as *I can read*, *thou mayſt hear*, *he would run*: And the *Optative Mood*, which always involves a *Wiſh*, *Deſire*, &c. As, *would to God* I had *learn'd*. (3.) The *Imperative Mood*, which *commands*, *exhorts*, or *intreats*; as, *read thou*, *let them hear*. (4.) The *Infinitive Mood*, which expreſſes the *Action* of the Verb indefinitely, and is known by the Particle *to*; as, *to love*, *to read*, *to write*.

Optative.

Imperative.

Infinitive.

The Tenſes of a Verb, what.

THE *Tenſes* of Verbs are the *Times* in which they exert their Action; and they are reckon'd *Five*, viz. (1.) The *Preſent Tenſe*, or Time now preſent while the Action is doing; as *I love*, *thou art loved*, *they do ſee*. (2.) The *Preter-imperfect Tenſe*, which relates to the Time paſt, and imports the Action of the Verb then in *Being*, but not finiſh'd; as, I *did love*, viz. *then*, and do ſtill. (3.) The *Preter-perfect Tenſe* refers to the *Time* perfectly paſt which belongs to the Action; as, I *have loved*, but (you may add) that's now over. (4.) The *Preter-pluperfect Tenſe*, which refers you to ſome Time which was paſt before ſome other Time which is alſo now really paſt; as, I *had heard it*, before he ſent the News. (5.) The *Future Tenſe* relating to the Time to come; as, *I ſhall* or *will love*.

Preſent.

Preter-imperfect.

Preter-perfect.

Preter-pluperfect

Future.

The Perſons of Verbs, how form'd.

THE Verbs are varied alſo in all the *Three Perſons* in the *Singular Number*; to the firſt Perſon belongs the *Theme* of the Verb, as *I love*; the ſecond is form'd by adding *eſt*, as *thou loveſt*; the third by *eth*, as *he loveth*. The Perſons in the Plural vary not the Termination of the firſt Perſon ſingular in any of the *Tenſes*; as, *we love*, *ye love*, &c.

Of the Auxiliary Verb Am.

IN order to have a clear Notion of *Conjugating Engliſh Verbs*, you muſt firſt ſee the Conjugation of the Verb *am*, which is call'd the *Auxiliary* or *helping* Verb, becauſe it is altogether uſed in forming the *Paſſive Voice* of Verbs. A Paradigm of which here follows in the Indicative *Mood*, *Tenſes*, *Numbers* and *Perſons*.

INDICA-

INDICATIVE MOOD.

	Singular.			Plural.		
	I	Thou	He	We	Ye	They
Preſent Tenſe.	am	art	is	are		
Pret. imperf.	was	waſt	was	were		
Preter-perf.	have been	haſt been	hath been	have been		
Preterpluperf.	had been	hadſt been	had been	had been		
Future.	will be	wilt be	will be	will be		

Here follows a Paradigm of the Conjugation of the Regular Verb *Love*, in the *Active* and *Paſſive* Voice.

The INDICATIVE MOOD.

Active Voice. *The* PRESENT. *Paſſive Voice.*

Sing.
I love or do love. — I am loved.
Thou lov'ſt or do'ſt love. — Thou art loved.
He loveth or does love. — He is loved.

Plur.
We, Ye, They love or do love. — We, Ye, They are loved.

The IMPERFECT.

Sing.
I loved or did love. — I was loved.
Thou loved'ſt or did'ſt love. — Thou waſt loved.
He loved or did love. — He was loved.

Plur.
We, Ye, They loved or did love. — We, Ye, They were loved.

The PRETERPERFECT.

Sing.
I have loved. — I have been loved.
Thou haſt loved. — Thou haſt been loved.
He hath loved. — He hath been loved.

Plur.
We, Ye, They have loved. — We, Ye, They have been loved.

Active Voice.	*The* PRETERPLUPERFECT.	*Paſſive Voice.*
Sing.	I had loved.	I had been loved.
	Thou had'ſt loved.	Thou had'ſt been loved.
	He had loved.	He had been loved.
Plur.	We, Ye, They — had loved.	We, Ye, They — had been loved.

The FUTURE.

Sing.	I ſhall or will love.	I ſhall or will be loved.
	Thou ſhalt or wilt love.	Thou ſhalt or wilt be loved.
	He ſhall or will love.	He ſhall or will be loved.
Plur.	We, Ye, They — ſhall or will love.	We, Ye, They — ſhall or will be loved.

The SUBJUNCTIVE MOOD.

The PRESENT.

Sing.	I may or can love.	I may or can be loved.
	Thou may'ſt or can'ſt love.	Thou may'ſt or can'ſt be loved.
	He may or can love.	He may or can be loved.
Plur.	We, Ye, They — may or can love.	We, Ye, They — may or can be loved.

The IMPERFECT.

Sing.	I might or could love.	I might or could be loved.
	Thou might'ſt or could'ſt love	Thou might'ſt or could'ſt be loved.
	He might or could love.	He might or could be loved.
Plur.	We, Ye, They — might or could love.	We, Ye, They — might or could be loved.

The PRETERPERFECT.

Sing.	I may have loved.	I may have been loved.
	Thou may'ſt have loved.	Thou may'ſt have been loved.
	He may have loved.	He may have been loved.
Plur.	We, Ye, They — may have loved.	We, Ye, They — may have been loved.

Active

Active Voice.	*The* PRETERPLUPERFECT.	*Passive Voice.*
Sing. I might have or had loved.		I might have or had been loved.
Thou mightest have loved.		Thou might'st have been loved.
He might have loved.		He might have been loved.
Plur. We, Ye, They — might have loved.		We, Ye, They — might have been loved.

The FUTURE.

Sing. I shall have loved.	I shall have been loved.
Thou shalt have loved.	Thou shalt have been loved.
He shall have loved.	He shall have been loved.
Plur. We, Ye, They — shall have loved.	We, Ye, They — shall have been loved.

The IMPERATIVE MOOD.

The PRESENT.

Sing. Love thou, or do thou love.	Be thou loved.
Let him love.	Let him be loved.
Plur. Love ye, or do ye love.	Be ye loved.
Let them love.	Let them be loved.

The INFINITIVE MOOD. *Present,* To love. *Perfect,* To have or had loved. *Future,* To be about to love.

The PARTICIPLES. *Active,* Loving. *Passive,* Loved.

SUCH is the Conjugation of a *regular Verb*; which you see is mostly perform'd with the *passive Participle loved*, and the auxiliary Verbs *do*, *have*, *shall*, *will*, *may*, *can*, and *am*.

Of Participles, the fourth Part of Speech.

As to the *Participles*, they are so call'd as partaking of the Nature of both *Noun* and *Verb*; of the first, as it is a sort of *Adjective*, and may be declined with Cases; as *loving*, *of loving*, *to loving*, &c. and it hath Tense and Signification from the Verb. For the *active Participle loving* is of the *Present*, the Passive

loved of the *preterite Tenſe*. The Active is always form'd by adding *ing* to the *Theme*; as *love*, *loving*; *read*, *reading*; *laugh*, *laughing*. The *Paſſive* is moſtly form'd by adding *ed*, or *d*, to the *Theme*; as *love*, *loved*; *burn*, *burned*; *laugh*, *laughed*: But ſome are irregular in *en*, and *t*; as *riſe*, *riſen*; *take*, *taken*; *bit*, *bitten*; *give*, *given*; *dream*, *dreamt*; *mean*, *meant*; *weep*, *wept*, &c. And here obſerve, that after *c*, *ch*, *ſh*, *f*, *k*, *p*, *x*, and ſometimes after *s*, *th*, and *l*, *m*, *n*, *r* (when a ſhort Vowel goes before) the *ed* or *d* is chang'd into *'t*, with or without an Apoſtrophe; as *plac't*, *ſnatch't*, *fiſh't*, *wak't*, *leapt*, *vex't*, *ſmelt*, &c. inſtead of the *better Form*, *plac'd*, *chang'd*, *fiſh'd*, *wak'd*, *leap'd*, *vex'd*, *ſmell'd*; and which were ſtill much better wrote entire, as *placed*, *ſnatched*, *changed*, &c.

Of Adverbs, and their ſeveral Kinds.

ADVERBS make the *fifth Part* of *Speech*; and are ſuch indeclinable Words, as being join'd to a *Noun* or *Verb*, *Participle*, &c. do expreſs ſome *Circumſtance*, *Quality*, or *Manner* of their Signification: And in *Engliſh* generally end in *ly*; as *wiſely*, *happily*, *greatly*, &c. *Adverbs* may be reduced to the following Heads. (1.) *Adverbs* of *Time*; as, *now*, *then*, *yeſterday*, *lately*, *preſently*, *to-morrow*, *when*, *ever*, *never*, *daily*, *long*, *often*, *ſeldom*, *again*, *anon*, &c. (2.) *Adverbs* of *Place*; as, *where*, *here*, *there*, *within*, *without*, *whither*, *thither*, *towards*, *upwards*, *downwards*, *the right*, *the left*, *whence*, *thence*, *hence*, *above*, *below*, *which way? this way*, *that way*, &c. (3.) *Adverbs* of *Number* and *Order*; as, *once*, *twice*, *thrice*; *then*, *thereafter*, *moreover*, *ſo forth*, *of new*, *finally*, *laſtly*, *firſt*, *ſecondly*, *thirdly*, &c. (4.) *Adverbs* of the *Manner*, *Quality*, &c. And theſe are either *Abſolute*; as, *ſimply*, *well*, *ill*, *bravely*; *truly*, *verily*, *certainly*; *happily*, *perhaps*, *no*, *not*; *to wit*, *namely*; *apart*, *together*; *lo! behold! why? whether*, &c. or *Comparative*, as *more*, *exceedingly*; *leſs*, *hardly*, *well-nigh*; *ſo*, *alike*, *as*; *otherwiſe*, *differently*, &c.

Of the ſixth Part of Speech, call'd Conjunctions, and the Kinds of them.

CONJUNCTIONS are reckon'd the *ſixth Part* of *Speech*. Theſe are ſuch Particles, or *unvariable Words*, as ſerve to conjoin *Words* and *Sentences* together, and thereby ſhew their Dependence on one another. Of theſe there are the following Sorts. (1.) *Copulatives*; as, *and*, *with*; *neither*, *nor*. (2.)

Diſjunc-

Disjunctives; as, *either*, *or*. (3.) *Conceſſives*; as, *though*, *although*, *albeit*, *yet*. (4.) *Adverſatives*; as, *but*, *yet*, *notwithſtanding*, *nevertheleſs*. (5.) *Cauſals*; as, *for*, *becauſe*, *that*. (6.) *Illatives*; as, *therefore*, *wherefore*, *ſeeing*, *ſince*. (7.) *Finals*; as, *that*, *to that end*. (8.) *Conditionals*; as, *if*, *provided*, *if indeed*. (9.) *Exceptives*; as, *unleſs*, *except*. (10.) *Diminutives*; as, *at leaſt*, *only*. (11.) *Expletives*; as, *now*, *truly*, *indeed*, *forſooth*. (12.) *Declaratives*; as, *viz. to wit*, *namely*, &c.

Of the ſeventh Part of Speech, call'd Prepoſitions.

PREPOSITIONS are the *ſeventh Part* of *Speech*; and, as their Name implies, are ſet before *Nouns Subſtantives* to ſhew the Relation between them, and alſo the *Manner*, *Order*, *Cauſe*, *Time*, *Place* and other *Circumſtances* of *Nouns* and *Verbs*; as, *in*, *to*, *through*, *by*, *before*, *behind*, *after*, *from*, *at*, *againſt*, *about*, *among*, *for*, *with*, *beyond*, &c. And beſides this *ſeparate* Uſe of *Prepoſitions*, they have another, which is to be joined in *Compoſition* with a vaſt Number of *Nouns* and *Verbs*; and by this means they create a great Variety, and give a peculiar *Beauty*, *Fluency*, and *Elegance* to the Language; as hath been before intimated.

Of the eighth Part of Speech call'd Interjections, and their ſeveral Kinds.

INTERJECTIONS make the *Eighth* and laſt Part of *Language*; theſe are ſmall indeclinable *Words* or *Particles*, which denote the *Affections* and *Paſſions* of the *Mind*, independently of any other Word in the *Sentence*; as in *Calling*, *Ho*, *Soho!* in *Rejoycing*, as, *O brave!* Some expreſs *Grief*; as, *ah! alas! wo is me!* ſome *Wonder*; as, *O ſtrange! indeed!* ſome *Praiſe*; as, *well done!* ſome *Averſion*; as, *away! phy! tuſh!* ſome *Surprize*; as, *Good God! What!* ſome *Fear*; as, *ha! aha!* ſome *Silence*; as, *hark! huſh! 'ſt!* ſome *Deriſion*; as, *avant! away with!* ſome *Imprecation*; as, *wo*, *pox on't!* ſome *Wiſhing*; as, *God grant! would to God!* ſome *Deprecation*; as, *God forbid!*

A general Obſervation.

CONCERNING all thoſe Particles, which make the four laſt Parts of Speech, this in general may be obſerv'd, that they are very often uſed *interchangeably* the one for the other, according to the *Tenor* and *Exigency* of the *Sentence* or *Expreſſion*; the ſame Word being now an *Adverb*, then a *Conjunction*, ſometimes a *Prepoſition*, at others an *Interjection*; as is obvious

to the Eye of every obſervant Reader. I ſhall now proceed to the laſt Part of Grammar, *viz.*

Of the fourth Part of Grammar, Syntaxis.

THE *SYNTAXIS* or due *Conſtruction* of Words in Sentences. A *Sentence* is an *Expreſſion* which conſiſteth at leaſt of two Words, as *God is*, *John readeth*; but oftentimes it hath three or more, as, *God hateth Liars*, but *His Countenance* doth always behold the *Upright*. In every *Sentence* there muſt be found a *Noun* and a *Verb*, the firſt the *Subject* of which the latter doth *affirm* ſomething, as, *a Lie is abominable*.

A Sentence, what.

The two Parts of Syntaxis, Concord and Government.

THE *Syntaxis*, in thoſe Tongues which vary the Terminations of the *Nouns* and *Verbs*, is divided into two Parts, *viz.* *Concord* and *Government*. *Concord* is the Agreement of Words in *Number*, *Perſon*, *Gender*, *Caſe*, &c. *Government* is when one Word ſo governs another, that it cauſes it to be put into ſome ſpecial Caſe; and therefore, ſince *all Caſes* of *Engliſh Nouns* are made by invariable *Particles*, or *little Words*, as before hath been taught, it plainly appears that little *Syntactical Government* is to be expected in our Tongue, and that 'tis much better taught by the *Genius* thereof, than by the Rules of *Art*.

Some Rules for Engliſh *Concord.*

BUT with Regard to *Concord*, ſomewhat is neceſſary to be ſaid; ſince, though in it ſelf ſo eaſy, it is ſo little underſtood or attended to, in either *Speaking* or *Writing*, amongſt *common People*. Its Rules are few and plain, and are as follow. (1.) The *Particles a* and *an* muſt never be ſet before *Nouns* of the *Plural Number*; but *the* before *Singular* and *Plural*; as *a Man*, *an Houſe*, *the Man*, *the Houſe*. (2.) A *Verb* muſt agree with its *Noun* in *Number* and *Perſon*, as *Thou readeſt*, *He heareth*, *We read*. (3.) Two *Nouns* ſingular, having a *Conjunction Copulative* between them, require a *Plural Verb*; as, The King and Queen *reign*, not *reigns*: His Juſtice and Goodneſs *were* (not *was*) great. (4.) *Nouns* of *Number*, or *Collectives*, may have a *Singular* or *Plural Verb*, though themſelves be *Singular*; as, The Mob *is*, or *are*, unruly; the Parliament *is*, or *are*, ſitting; Part of the Nation *was*, or *were*, ſlain. (5.) Any *Sentence*, or *Matter*, being the Subject of the *Verb*, requires the *Verb* to be put in the *Singular Number*; as, Early Riſing *is* healthful; to be learned *is* very honourable. (6.) When two *Nouns* of different Numbers are connected

in

in a Sentence by a *Verb*, the *Verb* generally agreeth in *Number* with the *neareſt*; as, Nothing *is* here wanting but *Charms*: Riches *are* too often a *Snare* to Men. The Rules of *Concord* between the *Subſtantive* and *Adjective*, the *Relative* and *Antecedent*, have in our Tongue no Place.

Soleciſm, what.

AND when theſe or any other Rules of *Grammar* are tranſgreſſed in *Speaking* or *Writing*, ſuch a *Default* is call'd a *Soleciſm*, or an *Impropriety of Speech*, wherein the *Expreſſion* is *rude*, *uncouth*, and *barbarous*. It is ſaid to be derived from the *Soli*, a People of *Attica* in *Greece*, who being tranſplanted to *Cilicia* in Leſſer *Aſia*, quite loſt the Purity of their *Mother Tongue*, and became remarkable and even a *By-ſaying* for their *barbarous Pronunciation*.

Whence derived.

Of Periods, their Nature and Compoſition.

As *Syllables* are compoſed of *Letters*, *Words* of *Syllables*, and *Sentences* of *Words*; ſo *Periods* are compoſed of *Sentences*, and a *Diſcourſe* of *Periods*. Every *Period* ought to have two compleat *Sentences*, and not to exceed *four*. And that the *Period* may be juſt and agreeable, the *Expreſſions* or particular *Sentences* ſhould not be too long, but ſuch as may render the whole Period proportional to the *Breath* of the *Speaker*, and the *Voice* capable of repoſing at convenient Intervals.

A Period of two Sentences.

A Period therefore cannot conſiſt of leſs than two *Sentences* or *Members*; for inſtance, (1.) *As the Body without the Spirit is dead*, (2.) *ſo Faith without Works is dead alſo.*

A Period of three Sentences.

A Period of *three Members* may be ſuch as this; (1.) *Seeing that by thee we enjoy great Quietneſs, and that very worthy Deeds are done unto this Nation by thy Providence*; (2.) *we accept it always, and in all Places, moſt noble* Felix, *with all Thankfulneſs*: (3.) *Yet that I be not further tedious to thee, I pray that thou would'ſt hear us, of thy Clemency, a few Words.* A Period of *three Members* more ſimple: (1.) *In the Beginning was God*; (2.) *and the Word was with God*, (3.) *and the Word was God.*

A Period of four Sentences.

A Period of *four Sentences* or *Members*: (1.) *The Father judgeth no Man*, (2.) *but hath committed all Judgment to the Son*; (3.) *That all Men ſhould honour the Son*, (4.) *even as they honour the Father.*

THUS much for the Nature of Periods in general, which, as they are the Parts or Members of Diſcourſe, ſo

ſo the more *equal*, *propotionate*, *ſententious*, and *beautiful* they are contrived, the more *ſubſtantial*, *perfect*, *elegant*, and *agreeable* will be the Oration; and therefore it is a Matter of the *greateſt Importance* to thoſe that ſpeak in *Public*.

The Points or Stops uſed in Writing.

In Writing we uſe ſeveral Stops or Pauſes, and other Marks or Characters, which are as follow, *viz.* The *Comma* (,) which ſtops the Voice while you tell *one*. The *Semicolon* (;) pauſeth while you tell *two*. The *Colon* (:) while you tell *three*; and the *Period*, or *full Stop*, (.) while you tell *four*. They are uſed in a Period according as the *Senſe* of each ſeparate Member is more complete, and the laſt or full Stop only at the Cloſe of the Period.

Other Marks and Characters.

The Marks *or* Characters *uſed by Writers are theſe:*

(1.) An *Interrogation* (?) when a *Queſtion* is asked, as, Who?

(2.) A *Note* of *Admiration* (!) as, Was ever the like ſeen!

(3.) An *Accent* (`).

(4.) An *Apoſtrophe*, (') as *I'll*, for, I will.

(5.) An *Aſteriſm* (*) referring to ſomewhat in the *Margin*.

(6.) An *Obelisk* (†) of the ſame Uſe.

(7.) A *Paragraph* (¶) begins a new Head or Subject.

(8.) A *Section* (§) denotes the Beginning of a new *Section*.

(9.) A *Quotation* (“) ſhews a Paſſage *quoted* from an Author.

(10.) An *Index*, (☞) a *Hand* pointing to ſomewhat very remarkable.

(11.) An *Hyphen*, (-) uſed to ſeparate *Syllables*, as *God-head*.

(12.) A *Parentheſis* ( ) or *Crotchet* [ ], including one Sentence within another.

An alphabetical LIST *of* ABBREVIATIONS.

A. *Aulus*, *Afternoon.*
A. B. *Artium Baccalaureus*, or Batchelor of Arts.
Abp. *Archbiſhop.*
Acc^{t}. *Account.*
A. D. *or* An. Dom. *Anno Domini*, i. e. in the Year of our Lord.
Adm^{l}. *Admiral.*
Adm^{rs}. *Adminiſtrators.*
A. M. *Artium Magiſter*, Maſter of Arts.
A. R. *Anno Regni*, in the Year of the Reign.
Aſt. P. G. *Profeſſor of Aſtronomy at Greſham College.*
B. A. *See* A. B.
Bar. *Baronet.*
B. D. *Batchelor of Divinity.*
Bp. *Biſhop.*
B. V. M. *Bleſſed Virgin* Mary.
C. *Centum*, an Hundred.
C. C. C. *Corpus Chriſti College.*
Cent. *Centum*, an Hundred.
Ch. *Charles*, or *Church.*
Cl. *Clericus*, a Clergyman.
Cor. *Corollary.*
C. P. S. *Cuſtos Privati Sigilli*, Keeper of the Privy-Seal.
Cur. *Curtius*, *Curate.*
D. *Duke*, *Dukedom.*
D. D. *Doctor of Divinity.*
Deut. *Deuteronomy.*
Dit. *Ditto*, the ſame.
Do. *Ditto.*
Du^{m}. *Dukedom.*
E. *Earl.*
Earld. *Earldom.*
E. g. *Exempli gratia*, for Example.
Eng. *Engliſh*, *England*,
Ep. *Epiſtle*,
Eſq; *Eſquire.*
Ev. *Evangeliſt.*
Ex. *Exodus*, *Expoſition.*
Fr. *France.*
F. R. S. *Fellow of the Royal Society.*
Gen^{mo} *Generaliſſimo.*
Gent. *Gentleman.*
G. R. *Georgius Rex*, *King* George.
Heb. *Hebrew.*
Hier. *Hieronymus*, i. e. *Jerom.*
Hund. *Hundred.*
Id. *Idem*, the ſame.
i. e. *Id eſt*, that is.
I. H. S. *Jeſus Hominum Salvator*, Jeſus the Saviour of Men.
ΙΧΘΥΣ, for Ἰησοῦς Χριστὸς Θεοῦ Υἱὸς Σωτὴρ, i. e. Jeſus Chriſt, the Son of God, the Saviour.
Jac. *Jacobus*, James.
J. D. *Jurum Doctor*, i. e. *Doctor of Laws.*
Jes^{t}. *Jeſuit.*
Jno. *John.*
K. *King.*
K^{m}. *Kingdom.*
K^{t}. *Knight.*
L. *Lord*, *Lake.*
L. *or* l. *Liber*, a Book.
Lap. *Ladyſhip.*
Ld. *Lord.*
L. D. *Lady-Day.*
LL. D. *Legum Doctor*, i. e. Doctor of Laws.
Lp. *Lordſhip.*
Lr. *Letter.*
M. *Marquis.*
M. A. *Maſter of Arts.*
Ma. *Madam.*
Ma^{ty}. *Majeſty.*
Math. *Mathematician.*
M. D. *Medi-*

M. D. *Medicinæ Doctor*, i. e. Doctor of Phyſick.
Mr. *Maſter*.
Mrs. *Miſtreſs*.
MSS. *Manuſcripts*.
M. S. *Memoriæ Sacrum*, i. e. Sacred to the Memory.
N. *Note*.
N. B. *Nota bene*, i. e. Mark well.
N. S. *New Style*.
O. S. *Old Style*.
Per Cent. *By the Hundred*.
Philom. *Philomathes*, a Lover of Learning.
P. M. G. *Profeſſor of Muſic at* Greſham *College*.
Pr. *Prieſt*.
P. S. *Poſtſcript*.
Q. *Queen*, *Queſtion*.
q. *Quaſi*, as it were.
q. d. *Quaſi dicat*, as if he ſhould ſay.
R. *Rex*, King; or *Regina*, Queen.
Regt. *Regent*.
Reg. Prof. *Regius Profeſſor*, i. e. Royal, or King's Profeſſor.
Rel. *Religion*.
Rev. *Revelation*.
Ro. *Romans*.
Rt. *Right*.
St. *Saint*.
Serj. *Serjeant*.
Serv. *Servant*.
Sh. *Shire*.
Sol. *Solution*.
Sr. *Sir*.
S. S. T. P. *Sacro-Sanctæ Theologiæ Profeſſor*, a Profeſſor of Divinity.
T. *Thomas*.
V. *Virgin*.
v. *Vide*, i. e. ſee.
Viz. *Videlicet*, i. e. that is to ſay.
Ult. *Ultimate*, the laſt.
Wp. *Worſhip*.
Xn. *Chriſtian*.
Xt. *Chriſt*.
ye. *The*.
yn. *Then*.
yt. *That*.
&. *et*, i. e. and.
&c. *et cætera*, and the reſt.

Numerical Abbreviations.

$\overline{I}$. *One Thouſand*.
$\overline{V}$. *Five Thouſand*.
$\overline{X}$. *Ten Thouſand*.
$\overline{L}$. *Fifty Thouſand*.
$\overline{C}$. *A Hundred Thouſand*.
CC. *Two Hundred*.
D *or* IↃ. *Five Hundred*.
DC. *Six Hundred*.
M. *or* CIↃ. *A Thouſand*.
IↃↃ. *Five Thouſand*.
CCIↃↃ. *Ten Thouſand*.
IↃↃↃ. *Fifty Thouſand*.
MDCCXXXVII. *One Thouſand Seven Hundred and Thirty Seven*.

Latin Words explain'd.

Errata, Errors.
Corrigenda, Things to be *corrected*.
Addenda, Things to be *added*.
Mutanda, Things to be *alter'd*.
Delenda, Things to be *blotted out*.
Pro, For.
Lege, Read.
Dele, Blot out, or eraſe.
Finis, The *End*.
Imprimis, In the firſt Place.
Item, Alſo.
Memorandum, Somewhat to be remembered.
Ibid. Ibidem, In the ſame Place.

Ipſo

Ipſo Facto, In very Deed or Fact.
De Facto, Matter of Fact.
De Jure, Of Right.
Probatum eſt, It is approv'd.
Vi & Armis, By Force and Arms.
Jure Divino, By divine Right.
Alias, Otherwiſe.
Ipſe Dixit, Himſelf ſays ſo.

Sizes *of* Books.

Folio. A Book of the largeſt Size, in which a Sheet makes two Leaves.

4to *Quarto*. That in which a Sheet makes four Leaves.

8vo *Octavo*. Having a Sheet folded into eight Leaves.

12mo *Duodecimo*. Having a Sheet folded into twelve Leaves; and we call it a Book in *Twelves*.



Of RHETORIC *and* ORATORY; *or the Art of* SPEAKING *with* ELOQUENCE *and* PERSUASION.

Rhetoric defined; how it differs from Oratory.

RHETORIC is the Art or Faculty of *Speaking well and ornamentally* on any Subject. Or as *Ariſtotle* has defined it; *It is the Faculty of obſerving what every Subject affords of Uſe to Perſuaſion.* This is a general Definition, including equally both *Rhetoric* and *Oratory*. For theſe two differ only as *Theory* and *Practice*; the Buſineſs of a *Rhetorician* being to lay down *Rules* and *Precepts* for Speaking elegantly, and that of the *Orator* to *uſe* and *apply* them commodiouſly in *Practice* to the Purpoſe of Perſuaſion.

Rhetoric conſiſteth of four great Parts.

THIS Art doth conſiſt of four great Parts. (1.) *Invention*; which *excogitates* and *finds* out ſuch *Reaſons*, *Motives*, and *Arguments* as are adapted to *perſuade* or gain the *Aſſent* and *Belief* of the *Hearer* or *Reader*. (2.) *Diſpoſition*; which is the proper and moſt advantageous *placing*, *diſpoſing* and *ranging* the *Arguments* and *Subject-Matters* before invented in a *proper* and *requiſite Order* and *Method*. (3.) *Elocution*; which provides a *Diction* enrich'd and embelliſhed with all the *Ornament* of proper *Tropes* and *Figures*; and in which choſen Words are adapted to expreſs the Things invented, with *Force* and *Energy*. (4.) *Pronunciation*; which regards the Delivery of the Diſcourſe or Oration with an agreeable *Modulation* of the *Voice*, and becoming *Geſture* of the *Body*.

Invention.

Diſpoſition.

Elocution.

Pronunciation.

INVEN-

INVENTION, as was ſaid, is the *finding* ſuch Arguments as are proper to perſuade, and gain Belief. Theſe Arguments are divided into *Artificial*, and *Inartificial*. The *Former* are the proper Object of the Invention of him who writes; the *Latter* he borrows from abroad, and accommodates them to his *Subject*. *Of Invention, the firſt Part of Rhetoric.*

OF *Artificial* Arguments there are three Sorts, (1.) *Reaſons* or *ſyllogiſtical Argumentations*; which moſt directly convince the Underſtanding, and effect Belief. Theſe are derived from *various Topics*; either ſuch as afford an *abſolute Certainty*, and then they become *Demonſtrations*: Or from *Ratiocination* or *Reaſoning* from *Cauſes*, *Effects*, *Subjects*, *Adjuncts*, *Kind*, *Species*, the *Whole*, the *Part*, and other *logical Topics*: Or laſtly, from *Topics* of *Probability* and *Veriſimilitude*. *Artificial Arguments of three Sorts.* *Reaſons or Argumentations.*

(2.) Thoſe which we may call the *Manners*, and whereby the Orator *ingratiates* himſelf with the *Audience* or *Reader*, and *conciliates* their *good Opinion* or *Favour*. This is promoted by his own *Manners*, as his *Prudence*, *Wiſdom*, *Learning*, *Probity*, *Modeſty*, &c. Or the *Manners* of the *Auditors*; as their *Paſſions*, *Habits*, *Age*, *Fortunes*, and *Stations*; to all which he muſt have a tender *critical* Regard. Or, laſtly, the *Manners* of the *Nation* or *Country*; as *Liberty* in a *Republic*; the *Laws* in a *Democracy*; *Riches* in an *Ariſtocracy*; and the *Royal Prerogatives* in a *Monarchy*. *The Manners.*

(3.) The third Kind of Arguments are call'd the *Paſſions*; their *Deſign* and *Uſe* being to *excite* and *move*, or elſe to *calm* and *compoſe* the *Paſſions*; and nothing concerns an *Orator* more than to acquire a nice Judgment and Skill in affecting the Paſſions, and ſtriking them ſingly as he would. Without the *Pathetic*, even the juſteſt *Reaſoning*, though ſupported by ſound Learning, will appear a *cold*, *lifeleſs*, and *unaffecting* Harangue. *The Paſſions.*

THE *Inartificial Arguments* are not the Effect of the *Orator*'s Art, but he takes them from divers *Topics* elſewhere; as from the *Scriptures*; the *Teſtimonies* of antient and modern *Authors*; common and received *Opinions*, *Proverbs*, and *Sentences*; from *Oaths*, *Writings*, *Laws*, *Contracts*, *Witneſſes*, *Signs* and *Seals*, and abundance of other Circumſtances, all which an *Orator* ought to be well acquainted with. *Of Inartificial Arguments.*

THE

The Topics of Artificial Arguments, General and Special.

THE *Topics* of *Artificial Arguments* are either *General* or *Special*: *General Topics* are the *Store-houſes* of *Arguments*, common to all Kinds of Subjects or Cauſes; and are by the Learned *Voſſius* determined to be *two* in Number, *viz.* (1.) *Poſſible* or *Impoſſible*; for whether we deſign to perſuade or diſſuade, to praiſe or diſpraiſe, accuſe or defend, we muſt always prove the *Fact* or *Subject* has been, or is, *Poſſible* or *Impoſſible* to be. (2.) *Great* and *Small* is the other Title of *General Topics*; and to this all Compariſons relate. As when we ſhew, *this* is more or leſs *beneficial* or *pernicious*, more *uſeful* or *unuſeful*, more *honourable* or *diſhonourable*, more *juſt* and *equitable*, or *unjuſt* and *illegal*, than *that*.

The General of two Sorts; Poſſible or Impoſſible. Or Great and Small.

Special Topics.

Special Topics are ſuch *Seats* or *Heads* of *Arguments* as are proper to *particular Subjects* and *Cauſes*; and for that Reaſon vary according to their *Variety*.

Of the three Kinds of Subjects. The Demonſtrative. The Deliberative. The Judicial. The Purpoſe and End of each.

OF *Cauſes* or *Subjects* of *Oratory*, there are *three Kinds*. (1.) The *Demonſtrative*; (2.) The *Deliberative*; and (3.) The *Judicial*. The *Demonſtrative* Kind *praiſes* or *diſpraiſes*; the *Deliberative perſuades* or *diſſuades*; and the *Judicial accuſes* or *defends*. And all a Man can ſpeak or write muſt be recommended to the Hearer or Reader in one of theſe three Ways. The *Purpoſe* of the *Demonſtrative* Kind, is *Honour* or *Shame*; and its *End*, to render the *Perſon*, or *Thing*, *lovely* or *deteſtable*. The Purpoſe of the *Deliberative* is *Profit* and *Advantage*, and the *contrary*; and its End, *Hope* or *Fear*. The *Judicial* Kind purſues *Equity* and *Right*; and hath in View, *Clemency* or *Severity*.

Orations of the Demonſtrative Kind, threefold.

Orations or *Diſcourſes* of the *Demonſtrative* Kind, or ſuch as *praiſe* or *diſpraiſe*, are of three ſeveral Kinds; as (1.) Thoſe which concern *Perſons*, *real* or *imaginary*; (2.) Thoſe which are converſant about *Facts* or *Deeds*; and (3.) Thoſe which relate to *Things*.

Thoſe of Perſons. The Subjects of this Kind of Praiſe or Diſpraiſe.

Oratorial Diſcourſes concerning the *Praiſe* or *Diſpraiſe* of *Perſons*, are ſpent chiefly on the following *Topics*, *viz.* (1.) On conſidering and expatiating on ſome very *remarkable* and *diſtinguiſhing Circumſtances* of the *Perſon*; as the *Prodigies*, *Prophecies*, *Oracles*, &c. (if any) which preceded his *Birth*: The *notable*

Adjuncts of his Birth, if any: His *Native Country*: His *Stock* or *Lineage*: His *Sex*: His *Education*, *Learning*, *Studies*, *Counſels*, and *Exploits*, and all other *Circumſtances* attending every Stage of his Life: His *Death*, the *Manner* and *Events* thereof: The *Funeral Solemnities*, &c. (2.) The next *Topic* of *Diſcourſe* is the *various Fortune* of the Perſon, in reſpect of *Riches*, *Poverty*, *Honours* and *Dignity*: His *Friends*, *Relatives*, and *Children*. (3.) The *Accidents* of his *Body*; as *Health*, *Strength*, *Robuſtneſs*, *Activity*, *Beauty*, and *Form*. (4.) The *Endowments* and *Qualities* of his *Mind*; as *Wit*, *Ingenuity*, *Judgment*, *Docility*, *Memory*, &c. (5.) His *Manners* and *Habits*, with regard to *Virtue* and *Vice*; where every Virtue conſpicuous in his Life is taken Notice of, and recommended; and every *Vicious Habit diſprais'd* and *declaim'd*. In all Declamations of this ſort, Care ſhould be taken, that we do not aſcribe to the Perſon *undue Praiſe*; nor ſuch as is common to many, and not ſingularly his own; and laſtly, that we dwell not too long on the Praiſes of light and trifling Things.

Thoſe which relate to Facts, and the Topics peculiar thereto.

THE *ſecond Sort* of *Declamations* of the *Demonſtrative* Kind, are thoſe which relate to the *Praiſe* of *Facts* and *Deeds*. The *Topics* whence *Materials* for amplifying and ſetting off this Kind of Subject are deduced, are ſuch as theſe; (1.) That the *Action* was *honourable*, and *becoming* the Perſon. (2.) That it was *legal*, and *conſentaneous* to the Laws. (3.) That it was *juſt* and *righteous* with reſpect to GOD and *Man*. (4.) That it was *glorious*, and procur'd the Author *Fame* and *Reputation*. (5.) That it was *uſeful* in procuring ſome very *conſiderable Good*, or in averting ſome imminent and dangerous Evil. (6.) That it was an *Enterprize* of *Difficulty*, and attended with *great Labour* and *Expence*, and *atchiev'd* in a *ſhort Time*. (7.) The *Circumſtances* of the *Perſon*, and *Manner* of the *Action*; as that he did it either *firſt*, or *alone*, or with *few*, or *principally*; or at a moſt neceſſary *Exigence* of *Time*, *Place*, or *Juncture* of Affairs; or *often*; or that the *Action* has a Regard to the *Honour* and *Benefit* of the *City* and *Country*; or that *thereby* new *Honours*, *Dignity*, *Power*, &c. firſt accrued to his Country. All which it behoves the *Orator* to examine and apply.

Thoſe which relate to Things, as Places.

THE *third Subject* of *Praiſe* are *Things*; of which we may reckon *two Sorts*. (1.) *Places*; as *Regions* or *Countries*, and *Cities*; concerning which we obſerve their *Origin*, *Antiquity*, *Extent*, *Situation*, *Fertility*, *Produce*, the *Inhabitants*, the Founders of Cities, their *Governors* and *Rulers*, the *Laws*; and every other thing which may contribute any thing of *National* or *Civil Glory*. (2.) The *Habits* of the Mind, the *Manners*, and the various *Acquiſitions* of *Learning* and *Science*, when in *themſelves* and *abſolutely* conſider'd. Theſe afford *a copious Theme*; nothing being more obviouſly *Praiſe-worthy* than *Virtue* and *Learning*; and *Vice* and *Ignorance* claim the greateſt Abhorrence among *deteſtable Things*.

Habits of the Mind.

Of the Deliberative Kind of Subjects or Cauſes, which perſuade or diſſuade.

THE ſecond Kind of *Diſcourſe* or *Subject* of *Oratory*, is the *Deliberative*, or that which *perſuades* or *diſſuades*. When the Orator enters on a *Subject* or *Diſcourſe* of this kind, he muſt well conſider every thing that may render the *Subject Matter* eligible or odious to the *Audience*; and ſcrutinize every *Topic* from whence Motives, Reaſons and Arguments may be drawn to effect the ſame.

The Subject Matter thereof, and its ſeveral Kinds.

THE *Subject* or *Matter* of theſe *Deliberative Orations*, are all Things which *happen*, and are *poſited* in our *Power*, whether of a *private* or *public Capacity*. Thoſe Subjects which have regard to a *public Capacity*, are (1.) *Funds*, *Revenues*, and *pecuniary Matters*. (2.) *Peace* or *War*. (3.) *Garriſons* or *Forces*, which are the Defence of *Countries*. (4.) *Trade* and *Commerce* of all Sorts. (5.) The Propoſal of *Laws* to be eſtabliſh'd or abrogated. *Subjects* of a *private Concernment* are whatever may be of *Advantage* or *Detriment* to *Particulars*.

The Topics of Arguments.

THE Topics from which *Motives*, *Reaſons* and *Arguments* are to be drawn under this ſecond *Great Part*, are counted theſe eight. (1.) The *Honourable*; which it borrows from the foregoing *Demonſtrative Kind*. (2.) The *Profitable* or *Beneficial*; which is peculiar to this Kind. (3.) The *Neceſſary*; that it cannot be otherwiſe, or without which we cannot be ſafe. (4.) The *Delightful*; that it conduces to the *Pleaſure* and *Delectation* of the *Body* or *Mind*, or of both. (5.) The *Poſſible*; that it may be eaſily done: This it takes from the foregoing *general Heads*.

(6.) The

(6.) The *Rightful* or *Legal*, which it borrows from the next *judicial Kind*. (7.) The *Event*; the Advantage of which is argued by way of *Dilemma*; let the Matter fall as it will, we ſhall obtain the *Benefit* and *Glory* intended. (8.) *Dialectical*, or thoſe borrow'd of its Siſter-Science *Logic*; when we reaſon from the *Subject* itſelf; the *Adjuncts*; the *Effects*; the *antecedent*, *preſent*, and *ſubſequent Circumſtances*; *Compariſon* from the *greater*, the *leſſer*, and its *contrary*; from *Teſtimony*; and above all *other Topics*, moſt *powerfully* and *efficaciouſly* from *Examples*, when they are very *appoſite* and *congruous*. But then Care ſhould be taken, that they do not wholly engroſs the *Oration*.

Of the Judicial Kind of Subjects, which accuſe or defend.

THE laſt Kind of Subject of the *Oratorial Art* is the *Judicial* or *Juridicial*, whoſe *Province* it is to *accuſe* or *defend*; and *Heads* or *Topics* of *Arguments* or *Proofs* in this vary according to the Variety of the *State* of the *Cauſe* which is the *Subject* of our *Accuſation* or *Defence*. There are four *States*. (1.) The *Conjectural State*, which enquires *whether* the *Fact* or *Caſe* be ſo, or not. (2.) The *Definitive State*, which enquireth of what *Denomination* the *Matter* is. (3.) The *State of Quality*, which examines the *Nature* of the *Cauſe*; and (4.) The *State of Quantity*, which is concern'd about the *Magnitude* of the *Crime* or *Fact*. Every *Speech* or *Oration* of this *juridicial Kind*, has one or more of theſe four *States*.

The ſeveral States of the Cauſe.

The State of Conjecture.

THE *State* of *Conjecture* has three *Topics* to conſult for *Argument* and *Proof*. (1.) The *Will*; which contains the *impulſive Cauſe* or *Motives*; as the *Paſſions* and *Affections*, viz. *Anger*, *Hatred*, *Envy*, *Avarice*, &c. Or, *Ratiocination*, i. e. Reaſoning from *Hope* of Advantage or *Fear* of Evil, *&c.* (2.) The *Faculty* or *Power* of doing the *Fact*; and hereto relates the *Occaſion*, Strength of Body, Inclination, Hopes of concealing the Matter, or Impunity, with various Circumſtances of the Matter, as *Time*, *Place*, &c. (3.) The *Signs* or *Tokens* of the Thing; of which ſome precede, ſome attend, and ſome follow the Fact; as *abſconding*, *Trepidation* or *ſhaking*, *ſtammering Speech*, *Dejection* or *Confuſion* in the Countenance, *&c.*

The Definitive State.

In the *Definitive State*, or that in which we enquire by *what Name* to call the Fact, we muſt define according to the *genuine* and *common Senſe* and *Force* of the Word; and confirm our own *Definition*, and confute that of the *Adverſary*. As when a *Thief* ſhall alledge, that indeed he did *take*, but not *ſteal* ſuch or ſuch Goods; or, that he did *ſteal*, but it was not *Sacrilege*; or a *Perſon*, that he did *ſtrike* another, but it was no *Aſſault* and *Battery*, &c. In all ſuch Caſes the Nature of the Fact muſt be *defined*, and the *Adverſary* confuted on that Head, by a Confirmation of your own Definition.

The State of Quality.

Negotial.

Juridicial, Which is Rational or Legal.

The *State of Quality*, or that which enquires into the Nature of the *Fact*, *Crime*, or *Cauſe*, is *twofold*. (1.) *Negotial*, or that which *negotiates* Affairs which *are to come*, which therefore belong to the *deliberative Subject* before treated of; or, (2.) *Juridicial*, and is therefore proper to this Head. This again is ſubdivided into *Rational* or *Legal*. The *Rational* alſo is either *Abſolute*, as when we ſimply defend the *Fact*, and aſſert it *laudably done*, and that in reſpect of *Nature*, *Law*, *Cuſtom*, *Right*, *Equity*, *Covenant*, &c. or *Aſſumptive*, which is when the Defence being weak, is ſupported by ſomething *foreign to* or *aſſumed* out of the Cauſe; as (1.) By *Compariſon*, when we ſhew that *one* of *two* Things was neceſſary to be done, and that *this* was more juſt and eligible than the other. (2.) By *Relation*, when we throw the Fault on him who has receiv'd the Injury. (3.) By *Removing*, which is when we throw the Fault on ſome other *Perſon* or *Thing* not ſubject to the *Court*, or its *Juriſdiction*; as on the Law. (4.) By *Conceſſion*; which is either by *Purgation*; when we defend not the Fact, but the *Will* and *Intention*; and ſay it happen'd *purely through Neceſſity*, *Fortune*, *Ignorance*, or *Imprudence*: Or *Deprecation*; when we plead *Guilty*, and intreat *Pity* and *Mercy*.

Of the Legal State.

The *Legal State* is converſant about the *Senſe* of the *Laws*, *Statutes*, and *written Authorities*; and the *Nature* of the *Crime* is thereby *ſcrutiniz'd*; and this Kind hath *five Species*: As (1.) The *Contrariety of the Law*; when it is either contrary to itſelf, or ſome other Law. (2.) The *written Letter*, and *Intention*, when

when the *Will* of the Writer ſeems to diſagree with the *Letter*; and here *Equity* and the Rigour of the Law contend. (3.) *Ratiocination*; when from what *is written*, we gather another Thing that is *not written*, becauſe founded on the ſame Reaſon. (4.) The *Ambiguity of the Diſcourſe*; which ariſes from the various Meaning of the Word, *dubious Accent*, *Diviſion* of the *Diction*, &c. (5.) *Tranſlation*; when we except againſt the *Accuſer*, the *Judge*, the *Place*, the *Time*, the Illegality of the *Indictment*, &c. and therefore deſire it may be alter'd and changed.

The State of Quantity.

THE *State of Quantity*, or that which enquires into the *Magnitude* or *Greatneſs* of the *Crime*, examines and informs us which are the *greateſt* and moſt *heinous Injuries*, and which are the *leaſt*. They are ſhewn to be *great*, (1.) In reſpect of the *ſlight Grounds* or *Provocation*. (2.) The great *Detriment* which follows in Conſequence thereof. (3.) Or the Circumſtances of the *Sufferer*, as that he was a Man of *great Merit*, *Name*, &c. and that the Damage is *irreparable*. (4.) Or of the *Agent*; as that he was the *firſt*, the *only* one who did it; or with a *few*, or *often*, &c. (5.) In reſpect of the Adjuncts; as if the Injury was done *deſignedly*; if it proceeded from an ungrateful Mind; if it be *complicated* of many *particular Injuries*, &c. (6.) In regard of the Law which is *violated*; as the Law of *Nature*, the Law of the *Land*, a *Municipal Law*, &c. the *Violation* of all which is greater or leſs *reſpectively*. Having thus given a *curſory View* of the firſt Part of the Art of *Rhetoric*, *Invention*; we proceed to do the like of the ſecond *great Part*, call'd

Of the ſecond great Part, Diſpoſition.

DISPOSITION; this is a very important *Diviſion*, and ought to be perfectly maſter'd by an *Orator*: For though we may ſometimes obſerve a very *notable Faculty* of *Invention* and *Utterance*, even among the *Vulgar* and *Barbarous*; yet the Art of *diſpoſing* the Matter invented, *aptly*, *commodiouſly*, *variouſly*, and in a *requiſite* and *genuine Method*, is granted only to the *Learned* and *Skilful*.

Its ſeveral Parts or Subdiviſions.

THERE are, by ſome, reckon'd *four*, by ſome *ſix general Parts* of *Diſpoſition*. (1.) The *Exordium*, or *Beginning* or *Opening* of the *Diſcourſe*. (2.) The *Narration*. (3.) The *Propoſition*. (4.) The *Confirmation*.

mation. (5.) *Confutation.* (6.) The *Peroration* or *Concluſion.* This is ſaid to be the *Natural Order* of the Parts of an *Oration*; but when the *Nature* and *Cauſe* requires us to depart therefrom, and chuſe ſome other, this latter is ſaid to be *Artificial.*

The Exordium, or the Beginnings of Orations, what they ſhould be, and effect.

In the *Exordium* or *Beginning* of the Diſcourſe, the *Orator* ſets forth the *Aim* and *Scope* of what he has to ſay, and then prepares the Minds of the Hearers for due Attention to the Sequel. If the *Cauſe* be *honourable*, then the *Benevolence*, *Attention*, and *Docility* of the *Hearers* are *naturally* ſuppoſed *ready* and *prepar'd*, without any *Artifice* neceſſary to obtain them.

In an honourable Cauſe.

In a diſhonourable one.

In a *diſhonourable Cauſe*, we muſt uſe a Method of *Inſinuation*, to *ingratiate* ourſelves with the *Audience*, and thus ſubtilly conciliate to us a patient *Hearing.*

In a dubious or doubtful Cauſe.

If the *Cauſe* be *dubious* or *doubtful*, the *Orator* prudently proceeds from that Face of it, which is *beſt* and *honourable.* If the *Cauſe* be *mean* and *low*, it ought to be *elevated* and *magnified* to the *Hearers*, by mentioning ſome *conſiderable Advantages*, and *honourable Circumſtances*, which will *attend* or *follow* it, and ſo render it worthy their *Regard* and *Attention.*

If obſcure and difficult.

In an *obſcure* and *difficult Cauſe*, he muſt *artfully* inſinuate into their Minds a *Deſire* and *Willingneſs* to be *inform'd* and *inſtructed.* The Conduct is not the ſame in the *Exordium* of all Diſcourſes, but is deduced from the *Topics* of *Arguments* proper thereto, whether it be of the *Deliberative*, *Demonſtrative*, or the *Judicial* Kind.

Of the Narration, and its Properties.

The *Narration* is a *Recital* of the Things *done*, or that ſeem to be *done*, adapted to *Perſuaſion.* This is not always a neceſſary Part, and has little Place in the *Deliberative Subject*, as alſo in the *Judicial*, except when we do not agree with the Adverſary about the Manner of the Fact. The *Narration* ought to be (1.) *Perſpicuous*; in proper and uſual Words, that it may be underſtood. (2.) *Likely* or *probable*, and therefore agreeable to Nature, Law, and the Manners of the Perſon; and alſo to the common *Rumour* and *Opinion*, that it may be believed. (3.) It muſt be *pleaſant* and *delightful*, as containing Things *new*, *unexpected*, *great*, *weighty*, and happy Events. (4.) It ſhould be *ſhort* and *brief*, the Matter not far-fetch'd, nor foreign to the Kind of Subject, yet ſo compleat

that

that nothing be wanting. The *Narration* alſo muſt be ſhorter for the *Defendant* than *Plaintiff*. After the *Narration*, ſometimes a Place is allowed to a *moderate Digreſſion*, when it can be *aptly* and *opportunely* made, which muſt be either for *Amplification* or *moving* the *Paſſions*.

Of the Propoſition and its Particulars.

THE *Propoſition* is that Part of the *Diſcourſe* wherein the *Orator* propoſes the *Sum* of the whole *Speech* or *Oration*; and if the Cauſe hath *many States*, the *Propoſition* will be either (1.) *Simple*; wherein the *Sum* and *State* of the whole Cauſe is briefly propounded. (2.) *Separation*; this has Place only in the *Judicial State*, wherein we lay open *in what we agree* with our *Adverſary*, and what yet remains in *Controverſy*. (3.) *Partition*; this is uſed in *all Kinds of Subjects*; therein we enumerate the ſeveral Heads and Kinds of Things of which we are about to ſpeak, and in the *ſame Order* as we intend to proceed. The Beauty of the *Partition* is, that it be *full*, *diſtinct*, *plain*, *certain*, and *ſhort*, containing not more than *three*, or, at moſt, than *four Parts*.

Of Confirmation, and what is obſervable relating thereto.

THE *Heads* of *Diſcourſe* being diſtinctly propoſed, the *Orator* next proceeds to treat of them according to their *Nature* and *Kind*; and his main Deſign is here the *Confirmation* of his *Poſition* or *Propoſitions*; to that end he thoroughly ſcans every Topic of *Reaſoning* or *Argumentation*; and having made a *Collection* which he judges ſufficient for his Purpoſe, he places them in the moſt advantageous Manner, and applies them with all the Force of Art and Judgment to eſtabliſh and confirm what he has advanced and aſſerted. In his Conduct in this Part of the *Oration*, he obſerves the following *general Rules*. (1.) If the Matter be capable of *abundant Proof* and *Reaſoning*, and his *Topics* all *pregnant* with *Arguments*, yet he prudently avoids *Luxury* even in *Reaſon*, and chuſes the feweſt that will ſuffice; ſince nothing is more *ſilly* and *irkſome* than to overdo any thing. (2.) If the Cauſe be *barren* in *Topics*, and thoſe too *infertile* ones, he uſes the greateſt *Diligence*, *Parcimony*, and *Art*, to *improve* and make the *beſt* of them. And therefore (3.) he places in the Front the *ſtrongeſt Arguments*, when the *Minds* of the *Hearers* are fir'd with the greateſt *Expectation* and *Attention*. The *Middle* is employ'd with

Arguments of the *weaker Sort*, that their Number (inſtead of Force) may render them of ſeeming *Importance*. Laſtly, he makes a Reſerve of ſome of the *moſt forcible* Reaſons to bring up the *Rear*; being conſcious that what the Audience hear laſt, makes the *greateſt Impreſſion*. (4.) If the *Strength* of the Cauſe depends on an *Argument* that is *alien* to it, he forthwith endeavours to *naturalize* it, and make it appear proper thereto. (5.) The *Bulwarks* of his Cauſe are chiefly thoſe *Argumentations* drawn from juſt *Syllogiſms*, *Enthymems*, *Inductions*, and *Examples*; the *Nature* and *Uſe* of all which you'll find explain'd in the next Chapter of *Logic*.

Of Confutation, and the Method thereof.

CONFUTATION of courſe follows Confirmation: For the *Orator* is not ſuppoſed to have done his Buſineſs by confirming his *own Doctrine only*; but 'tis expected he ſhould alſo confute his Adverſary's Notions, and ſhew them *falſe* or more *unreaſonable* than his own. In order to this, (1.) He obſerves that his *Antagoniſt* has taken for granted, what is not proved. (2.) Or, that he has aſſum'd from *true*, Things really *falſe*. (3.) Or, that he infers what *is not*, or *more than is* contain'd in the *Argument*, if granted. (4.) Or, that his Arguments are foreign to the Cauſe, and ſo of no Force. (5.) Or, he *retorts* the Force of his own Reaſons on himſelf, and *refels* him with his own *Weapons*. (6.) Or, he advances Arguments equally ſtrong, and, if he can, of more *Force* and *Energy* than his *Enemy*'s. (7.) Or, he will artfully *debaſe*, *laugh at*, or *undervalue* his *Opponent's Arguments*; tho' this be not a fair and honourable Way of Confuting. (8.) He contrives how he may firſt *invalidate* and *demoliſh* the ſtrongeſt *Pillars* of his Adverſary's Hold, that ſo the *whole Fabric* may fall at once upon him, and cruſh him.

The Peroration or Concluſion, and its Parts.

THE *Peroration*, *Epilogue*, or *Concluſion*, is the laſt and finiſhing Part of *Diſpoſition*. The *Concluſion* has generally Parts: (1.) *Anacephalæoſis* or *Recapitulation*, or *Enumeration* of the principal Arguments, in which the *Strength* of the *Cauſe* doth mainly conſiſt, and ought therefore to be fixed in the Minds of the Hearers; but Care muſt be taken that they be repeated with *Weight* and *Energy*, and the *Expreſſions* and *Figures* varied, that they may not ſeem a mere *Grumbe recocta*.

Anacephalæoſis.

recocta. (2.) The other Part is the *Pathopœia*, or Method of *Moving the Affections*; to this End, the moſt powerful and affecting Strains of *Eloquence* muſt be uſed, and all the *Art and Judgment* the *Orator* is Maſter of muſt here be employ'd, to move and excite the *Paſſions*. In ſhort, all the *Fountains* of *Oratory* muſt here be open'd, and the *Jets d'Eloquence* made to play upon the *Reaſon* and *Affections* of the Audience; yet this Part muſt always be ſo managed, as never to want *Brevity* and *Vehemence*. *Pathopœia.*

ELOCUTION, or the *Language* or *Diction*, is the third great Part of *Rhetoric* or *Oratory*. This is the *noble Part* which furniſhes *proper* and *graceful Words*, and adapts them to the juſt *Expreſſion* of the Things we have *invented*. It conſiſts therefore of *three Parts*; (1.) *Elegance*, the Foundation of this *Structure*. (2.) *Compoſition*, which is the *Compages* thereof. (3.) *Dignity*; this *embelliſhes* the Whole with the *Ornaments* of *Tropes* and *Figures*, and gives it *Grace* and *Solemnity*. *Of the third great Part, Elocution, and its Parts.*

ELEGANCE conſiſts of two Parts, (1.) *Purity* of Language, which is, that the Words be *genuine* or *free*, of *our Tongue*, not *foreign*; that they are in uſe among thoſe who underſtand the *Language* well; that they be not *obſolete*, or out of *uſe*; that they be not *low* and *mean*, more proper for the *Mob*, or *Ruſtic*, than an *Orator*. The *Phraſeology* ſhould be ſtrictly *grammatical*, to avoid *Ruſticity* and *Soleciſm*. (2.) *Perſpicuity*; this is a moſt *important Point*, and is maintained by *plain* and *uſual* Words; ſuch as are free from *Ambiguity*, or various Meanings; ſuch as are well underſtood, not *obſolete* or too *learned*; by avoiding too long, and too ſhort and abrupt Sentences; and keeping to a *uniform Method* of *Diſcourſe*, wherein the *Expreſſions* are duly connected, the *Dependence* evident, and the *Order* of *Perſons*, *Times* and *Things*, *natural* and *unconfuſed*. In ſhort, *Elegance* is gain'd by reading the *beſt* and *moſt polite Authors*, by keeping the beſt *Company*, and by *Study* and *Practice*. *Of Elegance, and wherein it conſiſteth.* *Purity.* *Perſpicuity.*

COMPOSITION reſpects the *Juncture* or *Connection*, *Order*, *Period*, and *Number*, of the *Syllables*, *Words*, and *Sentences* of a Diſcourſe. (1.) The Connection of *Syllables* and *Words* renders the Style *ſoft* and *ſmooth*, *gentle* and *flowing*, *ſweet* and *ſonorous*: To this *Of Compoſition and its Parts.* *Connection.*

this End the *Colliſion*, or *Meeting*, of too many *Vowels* or *Conſonants* muſt be avoided; and if a Word ends in a *Conſonant*, the following ſhould begin with a *Vowel*.

Order. (2.) As to Order, we ſhould always proceed from the *Low* and *Humble*, to the *Grave* and *Noble*; that we give *Precedence* to thoſe Things which are *firſt* in *Nature* or *Dignity*, as *Day* and *Night*, *Men* and *Women*, *Eaſt* and *Weſt*, &c.

Period. (3.) What relates to the *Periods* has been already treated of, at the End of the *Chapter* on *Grammar*.

Number. (4.) And as for *Number*, that relating to the *Meaſure* or *Quantity* of *Syllables*, is of a *Poetical Conſideration*, and muſt be learned from that *Art* in the *Chapter* next but one following.

Of Dignity, what it is. DIGNITY is that Part of *Elocution*, which teaches to ſpeak *floridly* and *ornamentally*, with *Tropes* and *Figures*, and very *apt* and *becomingly*.

Tropes, what. A *Trope* regards *Words*, and is an *elegant Turning* of a Word from its *proper* and *genuine* Signification to another.

The Species. In *Tropes* we may conſider, (1.) The *Species* of them, or proper *Tropes*, which are four, *viz. Metaphor*, *Metonymy*, *Synecdoche*, and *Irony*.

The Affections of Tropes. (2.) The *Affections* of *Tropes*, or ſuch *Qualities* as affect the aforeſaid *Tropes* with an additional *Grace* and *Ornament*: Theſe are *four*, viz. *Catachreſis*, *Hyperbole*, *Metalepſis*, and *Allegory*.

Improper Tropes. (3.) Some other Changes of Words, like to *Tropes*, but which are not properly ſuch. Theſe are ten, *viz. Antonomaſia*, *Litotes*, *Onomatopœia*, *Antiphraſis*, *Charientiſm*, *Aſteiſm*, *Diaſyrmus*, *Sarcaſm*, *Paræmia* or *Proverb*, and *Ænigma*. Of all theſe I ſhall give a *Definition* and *Inſtances*, as I find them in Verſe, in a little Book, call'd *Tropochematology*, with ſmall Variation.

A Metaphor or Tranſlation.

In Place of proper Words, a *Metaphor*
Puts the *Reſemblance*. How the *Waves* do *roar!*
The *Fields* do *laugh* and *ſing*: Did you behold
Their *light'ning* Steel? *Virtue* now waxeth *cold*.

A Metonymy, or a changing the Name of one Thing for another.

A *Metonymy* does *new Names* impoſe.
Th' *Inventor*'s; plump and ruddy *Bacchus* grows.
Or th' *Author*'s; lofty *Statius*, *Virgil* read.
Or th' *Inſtrument*; his *Tongue* defends his Head.
Or th' *Matter* whence 'tis moulded; he ſhall kneel,

An

An humble Suitor to thy conqu'ring *Steel.*
Or the *Effect*; *pale* Famine and *cold* Death
Attend on *bloody* War's *infectious* Breath.
The *Subject* that *contains*; we ſurfeited
On many *Diſhes* lately, now we're fed
With *England's* Tears; our *Pulpits* long exclaim'd
Againſt thoſe *Days*, yet ne'er a Heart was tam'd.
Or th' *Adjunct* that attends: Now you may ſee
The *Mace* is coming. What an *Age* are we!

Synecdoche a Thing *complete* confounds
With *Part* on't: Th' *Orator* with *Tropes* abounds:
Or takes the *Part* for *All*: So many *Springs*
I've dwelt within this *Roof*. Dear *Soul*, ſhe ſings. *Synecdoche, or Comprehenſion.*

An *Irony* ſpeaks *one Thing*, means *another*.
Well done good Guide: *Kind tender-hearted* Brother. *An Irony.*

Catachreſis the Senſe of Words does ſtrain.
You *threaten fair!* Winds *ride* upon the Main. *Catachreſis.*

Hyperbole ſoars * *high*, or creeps too ‖ *low*:
He *touch'd the* * *Skies*: A ‖ *Snail* don't *crawl ſo ſlow*. *An Hyperbole is twofold*, Meioſis, ‖ Auxeſis. *

Two *Tropes* in one does *Metalepſis* yield.
The Clouds drop *Fatneſs*: *Tyber* won the Field. *Metalepſis.*

An *Allegory* uſeth many *Tropes*.
I've paſt the *Shoals*, now *fair Gales ſpread* my Hopes. *An Allegory.*

Antonomaſy gives new *Names*. The *Poet*
Chanted *Pelides'* Worth, that Men might know it. *Antonomaſy.*

Litotes does more Senſe than Words include.
I'll *not refuſe* your Gifts: He's *not ſo rude*. *Litotes.*

Onomatopœia coins a Word from's Sound.
The Flies do *buzze*: *Tantarra's* fill the Round. *Onomatopœia.*

Antiphraſis makes *Words* to *diſagree*
From Senſe. The Speaker's *Dumb*: The * *Euxine* Sea. *Antiphraſis.* * i. e. *Hoſpitable.*

Charientiſm, for *harſh*, *ſoft Words* does uſe.
Be not ſo angry: *Heaven ſend better News!* *Charientiſm.*

Aſteiſm

Aſteiſm. *Aſteiſm* is a witty Jeſt. Who knew it?
The Woman's old, yet ne'er a Tooth to ſhew it.

Diaſyrmus. A living Enemy *Diaſyrmus* jeers.
This Raven ſings: The Muſic of the Spheres.

Sarcaſm. *Sarcaſm* ſtings the *Fleſh*, with Jeers does kill.
Cyrus, *thy Thirſt was Blood*; now drink thy fill.

Paræmia. *Paræmia*'s but a Proverb. *Tis too late*
After the Steed is ſtol'n to ſhut the Gate.

Ænigma. *Ænigma* is a Riddle: What 'tis, explain:
Four-legg'd i'th' Morn; *Noon*, *two*; *Night*, *three:* A [Man.

Of the Figures of Words and Sentences. HAVING paſs'd thro' the *Tropes*, we next proceed to the *Figures* or *Finery* of *Speech*; of theſe, ſome regard *Words*, others *Sentences*. The *Figures* of *Words* are *fifteen*; the firſt eleven are of the *ſame Sound*, the other four of a *like Sound*.

Antanaclaſis. *Antanaclaſis* in *one Word* does hide
Two Senſes. Come on, if we *ride*, let's *ride*.

Ploce. *Ploce* repeats a *proper Name* in Senſe
That's *common*. *Irus* grew an *Irus* hence.

Anaphora. *Anaphora* gives *more* Sentences *one* Head.
Peace crowns our Life: *Peace* does our Plenty breed.

Epiſtrophe. *Epiſtrophe* concludes alike. Be wiſe
In your *Advice:* Take time in your *Advice*.

Symploce. *Symploce* joins both the two laſt together,
And from both join'd makes up itſelf another.
Juſtice came down from Heaven to view the *Earth:*
Juſtice climb'd back to Heaven, and left the *Earth*.

Epanalepſis. *Epanalepſis* ends as it begins.
Sins ſtain thy beauteous Soul, forſake thy *Sins*.

Anadiploſis. *Anadiploſis* ends the former Line
With what the next begins. 'Tis the firſt Sign

Of

Of *Virtue*, if it flies the Steps of *Vice*;
Vice, which to Miſchief does the Soul entice.

Epanodos inverts what it repeats. *Epanodos.*
Meat's for the *Belly*, the *Belly* not for *Meats*.
He *bow'd*, he *fell*: *Bowing*, he *fell down* dead;
He there lay ſtill, where he *bow'd down* his Head.

The ſame Word *Epizeuxis* twice repeats. *Epizeuxis.*
Ah *poor*, *poor* Swain! *Me*, wretched *me*, he beats!

Climax aſcends by Steps. *Folly* breeds *Laughter*, *Climax.*
Laughter *Diſdain*, Diſdain makes *Shame* her Daughter.

In *Polyptoton* Words the Caſes change. *Polyptoton.*
For *Knave* to *catch a Knave* is nothing ſtrange.

Paregmenon does *Words deriv'd recite*. *Paregmenon.*
Of *Friendſhip friendly* to my *Friend* I write.

Paronomaſia alludes to th'Meaning where *Paronomaſia.*
The Letters change. Not *Friends* but *Fiends* were [here.

Homoioteleuton with *like Sounds* does end. *Homoioteleuton.*
Amend, to Virtue *bend*, and love thy *Friend*.

One Syllable twice *Parecheſis* ſets. *Parecheſis.*
Our *Miſ-chief chief-ly Li-berty* begets.

WE come now to the *Figures* of *Sentences*, and they are of four Kinds, *viz.* (1.) Such which pertain to the *Explication*. (2.) To *Probation* or *Confirmation*. (3.) To *Amplification*. And (4.) To *Arguments* proper ro excite the *Paſſions*. Of the *firſt Sort* are the following Six. *Of the Figures of Sentences.*

Hypotypoſis to your Eye contracts *Hypotypoſis.*
Things, *Places*, *Perſons*, *Times*, *Affections*, *Acts*.

Paradiaſtole croſſing does explain. *Paradiaſtole.*
They change *their Soil*, *not Minds*, who plow the [Main.

Antimetabole

Antimetabole. *Antimetabole* puts chang'd Words agen.
Kings *before Men are Gods, 'fore Gods are Men.*

Enantiosis. *Enantiosis* poiseth different Things.
Money *Care*, Truth *Foes*, and Flatt'ry *Friendship* [brings.

Synæceiosis. *Synæceiosis* to one Subject gives
Two Contraries. He's *Dead*, ev'n whilst he *lives.*

Oxymoron. In *Oxymoron Contradictions* meet.
The *Honey-Gall* of Love, this *Bitter-sweet.*

Figures of Probation. *Figures* pertaining to *Probation* or *Confirmation*, are the following Four.

Ætiology. *Ætiology* gives every Theme a *Reason.*
Speak little: *Who speaks much, speaks out of Season.*

Inversion. *Inversion* makes the Adversary's *Plea*
Our best *Defence.* Sir, *You'd not say me nay,*
But that I am a Stranger. (Answer) *Pray forbear,*
They who know more of You, trust less, I fear.

Prolepsis. *Prolepsis* your Objections doth *prevent*
With *Answers. But*, you'll say, *Pleasures were sent*
To wing the Soul: True, yet she'll soar so high
On those false Wings she'll scorch herself and die.

Epitrope. *Epitrope* gives Leave, or else dissembles.
Go take your Course: I will not stop your Rambles.

Figures of Amplification. Now follow the *Figures* of *Amplification.*

Incrementum. From low Beginnings *Incrementum* rises
T' a loftier Pitch. Could *Hell* forbear these Vices,
Nor gape to swallow them? Could th' *Earth* endure
Their Footsteps? Is the *Air* grown so impure
To give them Breath? Can *Heaven* behold their Riot
With patient Eyes? Or can the *Gods* be quiet?

Synonymy. *Synonymies* with *divers Words* declare
One Matter. He's *alive*, he *breathes the Air.*

Synathroeſm heaps *divers Things* together. *Synathroeſm.*
Thief, Taylor, Miller, Weaver; chuſe you whether.

Periphraſis a copious Strain induces *Periphraſis.*
T' expreſs *one* Word. * *The Father of the Muſes.* * *For* Homer.

Hendyades puts *two Subſtantives* for *one.* *Hendyades.*
He is advanc'd to *Ivory* and a *Throne.*

What *Eroteſis* knows full well, it *asks.* *Eroteſis.*
Was ever Virtue put to harder Tasks?

The Mind's Intent is rais'd by *Exclamation.* *Exclamation.*
Alas the Day! Oh moſt corrupted Nation!

Epiphonema makes a *final Clauſe.* *Epiphonema.*
Such Care's requir'd, that Men obſerve the Laws.

Epanorthoſis does Words paſt correct. *Epanorthoſis.*
Moſt *brave! brave,* ſaid I? moſt *heroic* Act!

Apoſiopeſis leaves *imperfect* Senſe. *Apoſiopeſis.*
I'll teach you—— yet I would avoid Offence.

Anacœnoſis tries another's Mind. *Anacœnoſis.*
But were you here, what Comfort would you find?

In Words and Actions *Aporia* doubts. *Aporia.*
What then? Shall I reply, or take her Flouts?

Proſopopœia feigneth Things to ſpeak. *Proſopopœia.*
The *Country cries, Why ſhould your Diſcord break*
My long-continu'd Joys? O Heavens, hear
My Plaints! *Grim Death will call* him hence, I fear.

Apoſtrophe turns from the firſt Diſcourſe. *Apoſtrophe.*
She's dead; *Did e'er the Fates yet feel Remorſe?*

I ſhall now add ſome *Grammatical Figures* of *Orthography*, put into *Verſe* alſo by the ſame ingenious Author. Of theſe are the following eight. *Grammatical Figures of Orthography.*

Proſtheſis

Proſtheſis. *Proſtheſis* adds to th' firſt Part of a Word.
Yclad in Armour, and *begirt* with Sword.

Aphæreſis. *Aphæreſis* takes away what t'other gave.
He'll ſpeak you fair, yet '*truth* he's but a Knave.

Epentheſis. *Epentheſis* does to the Middle add.
Go, *Black*-a-*moor*, and curſe the daring Lad.

Syncope. *Syncope* from the Middle ſteals a Cut.
Thus *Presbyter* in *Preſter* cloſe is ſhut.

Paragoge. By *Paragoge* ſomething's put to th' End.
Thus (*e*) abounds in *lovee*, *learne*, *feare*, and *friende*.

Apocope. *Apocope* for Haſte the *End* doth *ſpill*.
Thus *Thomas* we call *Tom*, and *William Will*.

Antitheſis. *Antitheſis* changes Vowels th'one for t'other.
A *ſteny* Heart *twa* Brethren dear to ſmother.

Metatheſis. *Metatheſis* the Letter's Place in Words
Doth change. As *brunt* for *burnt*, and *Cruds* for *Curds*.

Figures of Syntaxis. The following are *Figures* of *Syntaxis* in *Exceſs*.

Pleonaſm. In *Pleonaſm* ſuperfluous Words abound.
Mine Eyes did ſee't; *mine Ears did hear the Sound*.

Polyſſyndeton. In *Polyſſyndeton*, *Conjunctions flow*.
Both Lives, *and* States, *and* Hopes to thee we owe.

Parentheſis. *Parentheſis* is independent Senſe
Clapt in. *Aſtræa*'s fled *(fly Joys)* from hence.

Parelce. *Parelce* to the End puts more than needs.
He muſt be fat: See! ever*more* he feeds.

Figures of *Syntaxis* in *Defect*.

Ellipſis. Words in *Ellipſis* muſt be underſtood.
'Tis *one*, why *ſtay'ſt*? *Six* in the *Hundred*: *good!*

One

One Word to more, in *Zeugma*, is referr'd. *Zeugma.*
All Whiſt; nor *Leaves*, nor *Reed* by Wind *is ſtirr'd.*

Syllepſis puts two different Things together, *Syllepſis.*
And yet at all no Difference there is whether
Shall rule. For *Thou* give place to *I*, and *He* to both:
And *She* to *Him* Obedience pays, though loth.

Prolepſis ſets *all* firſt, and then *each Part.* *Prolepſis.*
They look, and wound the *one* the *other's* Heart.

Aſyndeton the Cop'latives denies. *Aſyndeton.*
Faith, *Juſtice*, *Truth*, *Religion*, *Mercy* dies.

The *Figures* in the *Body* or *Contexture* of the *Period*, are ſuch as follow. *Figures in the Context.*

Words by *Hyperbaton* in Order run *Hyperbaton.*
Diſturb'd. *Wealth, which the old Man for his Son*
Had rak'd and ſcrap'd together, now the Boy
Doth Perriwig and Pantaloon away.

Hyſteron-Proteron puts the *laſt* Word *firſt.* *Hyſteron-*
Here he was *bred* and *born*, *brought up* and *nurſt.* *Proteron.*

Hypallage Words in Places chang'd doth ſet. *Hypallage.*
Cups which I never *mov'd my Lips to* yet.

'Tis *Helleniſm* when we imitate *Helleniſm.*
The *Grecian Style.* Thus *Spencer* trots in State:
" *For not to have been dipt* in *Lethe* Lake
" Could ſave the Son of *Thetis from to die*;
" But that blind Bard did him immortal make,
" With Verſes dipt in Dew of *Caſtalie.*

Tmeſis between Words broke puts others in. *Tmeſis.*
What Gloſs *ſoe'er* he puts on't, 'tis a Sin.

Hyphen does Words to one another tie. *Hyphen.*
The *Sun-burnt* Clown, the *ever-chatt'ring* Pie.

Enallage changes *Perſon*, *Number*, *Tenſe*, *Enallage.*
Gender and *Mood* at will. See yonder whence

A Troop appears: Unleſs *they march* apace:
See *here's your Horſe*, ne'er fear, *we've won the Race.*

Antimeria. *Antimeria* for one Part puts another.
He's *new* come home; your *Say*'ll not ſave your [Brother.

Anaſtrophe. *Anaſtrophe* puts laſt what firſt ſhould go.
This is the Fault which I was ſubject to.

Syntheſis. *Syntheſis* minds not Words, but any ways
Speaks Senſe. The Moor-*hen treads*, the Wood-*cock* [*lays.*

Evocation. By *Evocation* the *third Perſon*'s made
To yield to *Firſt* or *Second*. *Thou*, *a Blade*,
Forget'ſt thy Neſt. I, yet no *aged Man*,
Remember ſince thy Father froth'd the Can.

Concluſion of the third Part. THUS you have, as it were in a *Synopſis*, a View of all the *gay* and *beauteous Flowers* which grow in the Garden of the Muſes. From hence the *Orator* gathers the *Ornaments* which embelliſh his *Orations*, and make them not only *fragrant*, *florid*, and *engaging*; but *rich*, *magnificent*, and *ſublime:* Such which *charm* the Ear, *illuminate* Truth, *diſpel* Error, *convince* the Underſtanding, and *command* Aſſent.

Of the fourth and laſt great Part, Pronunciation, wherein it does conſiſt. WE are now arrived to the laſt *great Part* or *Diviſion* of the *Rhetorical Art*, viz. *Pronunciation*; this is an apt and due *Configuration* or *Conformation* of the *Voice* and *Geſtures*, according to the Nature of *Words* and *Things*. Of this the *Memory* is the chief *Foundation:* For unleſs a Perſon be able to diſcourſe by *Memory*, or *Extempore*, much of the *Force* and *Grace* of *Pronunciation* or *Utterance* will inevitably be loſt. And he who ſtands erect, and hath his *Body* at *perfect Liberty*, ſo as to be able to humour all the *Geſtures* freely, and put himſelf in any kind of Motion, can certainly ſpeak with a more *natural*, *free*, *eaſy*, and *becoming Air*, than they who are ſtifly tied down to a *written Oration*. The latter indeed often utter *moſt Senſe*, have the moſt *correct Method*, and the beſt *Ratiocination*; but the other never fail to be far more *agreeable* and *engaging*. That the *Pronunciation* be juſt, a *clear*, *articulate*, *even*, *gentle*, and *various* Voice is neceſſary; *unaffected*, free from all *enthuſiaſtic Tone* and

and *Whining*; that it *riſe* and *deſcend*, be *intended* and *remitted*, according as the *Number* of People, or the *Nature* of the Subject ſhall require. As to the *Geſtures* of the *Body*, and its Parts, they ought to be *manly*, *rational*, and *graceful*; the Body *erect* and *ſtrait*, and apt for eaſy Flexure on either ſide; the *Countenance* of the Face pleaſant and ſad, and variouſly expreſſive of the *Paſſions*, as the *Exigency* of Things requires; but always *natural*, and free from *affected*, *puritanical Airs*, and all *fanatic Grimace* and *Contortions*, as of one *poſſeſs'd*. The *Head* ſhould ſtand *right* upon the Shoulders; the *Neck* free and eaſy of Motion; the *Shoulders* not hoiſted or ſhrugg'd up; the *Arms* not projected but in vehement Affections of *Joy*, *Grief*, &c. the *Hand* gently moved from the left *Breaſt*, and falling to the right Side. To ſtamp with the *Feet* is permitted only on the *Stage*. In fine, the *Modulation* of the Voice, and the *Congruity* of *Geſtures*, ſhould be ſuch, that the Argument may, as it were, be render'd viſible to the Eyes; and the *Art* of the *Orator* ſhould oblige us with the additional *Pleaſure* of a *Sight* and *Proſpect* of what *Nature* has only qualified us to *hear* and *underſtand*.

Of Style, and its Kinds.

BEFORE we quit this Subject, it may not be amiſs to ſay ſomewhat concerning *Style*, *Character*, or *Manner* of *Writing* or *Speaking*. This is of three Kinds. (1.) The *magnific* and *ſublime*. (2.) The *mean* and *equable*. And (3) the *low* and *ſimple Style*.

Of the low Style.

THE *low* or *humble Style* is a Diction *pure*, *decent*, and *native*, but not *rude* and *uncouth*; is cloſe, modeſt, gently flowing, elegant, and ſimple; and though it riſes not to *Pomp* and *Ornament*, yet it rejects the *vulgar Ways* of Expreſſion, and requires a comely Dreſs. *Virgil*'s *Bucolics* may be ſtudied for a Specimen of this Sort of *Style* or *Diction*.

Of the mean Style.

THE *mean* and *equable Style* riſes ſomewhat higher, and is more frequent in *Tropes*, but yet modeſt ones; is pretty *florid* with *Figures*, *pleaſant* in *Epiſodes* and *Digreſſions*; *flowing* with Sentences, yet gently, like a River whoſe Waters glide murmuring over the Stones between its Banks, painted on either Side with Flowers, and variouſly ſhaded with Woods. For this read *Virgil*'s *Georgics*.

Of the ſublime Style.

THE *ſublime* and *magnific Style* admits of nothing *mean* or *low* throughout the whole, no not ſo much as a *ſingle Sentence*; if any ſuch Thing be obſerv'd, though all beſides be ſaid ever ſo well, it will loſe the *Character* of the Sublime. It conſiſts in a moſt *exquiſite Choice* of *Words*, polite and elegant, bold and ponderous; great *Dignity* of *Tropes* and *Figures*, which it uſeth with the utmoſt Freedom, *ſplendid* and *noble*, but not *dazzling*; *ſolemn Majeſty of Sentences*, abounding with *grand* and *awful* Ideas; and all other *magnificent Furniture* of *Periods*, *Numbers*, &c. This not only terrifies with *Thunder*, and flaſhes with *Lightning*, but ſtrikes with Thunderbolts: Or like a *mighty rapid Torrent*, inlarg'd with Winter Snows, or Mountain Streams, which furiouſly bears down Bridges, Banks and Flood-Gates, lays waſte the Fields, overturns the Rocks; and where it finds no Way, will force one; ſo it bears away with itſelf the *Hearer* and *Adverſary*, and forces them to go whereever it pleaſes to raviſh them. This glorious Strain of *Rhetoric* runs through the *Æneid*, which is perhaps the nobleſt Inſtance of the *Sublime* that we can read. If any thing common there occurs, it receives a *peculiar Turn*, and is *exalted* by ſome *Trope*, or *beautified* with a *Figure*. Thus inſtead of *Wine*, *Fire*, *Bread*; *Bacchus* chears, *Veſta* warms, and *Ceres* ſatiates Hunger.

Of LOGIC, *or the* ART *of* *REASONING.*

LOGIC is the *Art* of juſt *Reaſoning*; or it is the Skill of uſing *rightly* the *Faculties* of the *Mind* to the Purpoſes of diſcovering *Truth* or *Error*. Logic *defined.*

THE *Faculties* or *Powers* of the Mind, whoſe *Operations* are more immediately concerned in *Logic*, are four. (1.) *Perception*, *Conception*, or *Apprehenſion*, is that Act of the Mind which *perceives* and *contemplates* the *Species* of external Objects offered to the Mind by the Senſes, and whereby we become *conſcious* of them. *(2.) Judgment*; this is that *Operation* of the Mind whereby we *compare* two or more *Ideas* together, and from viewing them we diſcover, and accordingly *affirm* or *deny* ſome *Property* of them; as, *Fire* is *hot*; *mere Matter* cannot *think*, &c. (3.) *Reaſoning*, *Argumentation*, *or Ratiocination*, is that Action of the Mind whereby we infer one Thing, or one *Propoſition*, from *two* or *more Propoſitions* premiſed. Thus when I have judged that *Man cannot be the Cauſe of himſelf originally*, and yet he is the *Effect of ſome Cauſe*, I muſt neceſſarily infer and conclude, the *Cauſe of Man's Exiſtence is ſomething external and different from himſelf*, which we call GOD. (4.) *Diſpoſition*; this is that Faculty of the Mind whereby it puts the *Ideas* or *Conceptions* in ſuch an *Order* as is moſt fitting to give a *clear View*, and yield the *compleateſt Knowledge* of them; and for an *Inſtance* thereof, you may take this very *Deſcription of the four Operations of the Mind, and their Effects.* The Effect of this Operation is call'd *Method.*

Of the Faculties and Operations of the Mind concern'd therein.

Perception.

Judgment.

Reaſoning.

Diſpoſition.

Ideas, what.

THE firſt of theſe *Operations* or *Faculties* of the Mind is converſant about *Ideas*. An *Idea* is the *Image* or *Repreſentation* of *Objects* in the Mind: Thus the *Notion* or *Form* of a *Horſe*, a *Tree*, a *Man*, &c. as it *exiſteth* in the Mind, is call'd the *Idea* of a *Horſe*, a *Tree*, or a *Man*.

All Ideas acquired by Senſation or Reflection.

ALL *Ideas* become the *Objects* of the Mind, or are there preſented to the *Judgment*, either (1.) By the *Perception* of the *Senſes*, by means of the *Nerves*, which we call *Senſation*: or (2.) By the *Meditation* of the Mind, which we call *Reflection*.

Themes, what.

THE *Objects* of *Perception*, which are the *Archetypes* of our *Ideas*, are call'd *Themes*, whether they are *Beings* or *Not-beings*, or *Entities* or *Non-entities*; for *Non-exiſtence* may be propoſed to our Minds, as well as *real Exiſtence* or *Being*.

Of Being and Not-being.

Being is that which *is* or doth *really* and *actually exiſt*, and therefore call'd *Exiſtence*; *Not-being* is that which hath no *Being* or *Exiſtence* in Nature, and is call'd *Non-exiſtence*. Again; every *Being* is conſidered as *ſubſiſting* either (1.) in and by itſelf, and that is call'd a *Subſtance*; or, (2.) it ſubſiſts *in* and *by another*, and then 'tis call'd a *Mode* or *Manner* of *Being*. Thus a *Body*, as *my Pen*, is a *Subſtance*, and its *Figure* or *Shape* the *Mode*.

Subſtance.
Mode.

Of Subſtances, and the various Kinds: Simple.

OF *Subſtances*, ſome are *Simple*, others *Compound*: *Simple Subſtances* are thoſe which are perfectly *homogeneous*, or without any *Mixture* or *Compoſition* of different Natures in them: as (1.) *Spirits*; ſuch we conceive *GOD* to be, and the *Angelic Species*: or, (2.) The *Elements* of *Natural Bodies*, or thoſe *firſt Principles*, or *ſimple Corpuſcles* of which all *material Bodies* do originally conſiſt. *Compound Subſtances* are made up of two or more *ſimple ones*, and ſuch are all that are *perceptible* by our Senſes in the *material World*.

Compound.

Pure.

AGAIN; *Subſtances* are ſaid to be (1.) *Pure*, when they conſiſt of only *one Sort of Subſtance*; as a *Guinea* is *pure Gold*, if it has *nothing but Gold* and no *Alloy* of other Metal in it. (2.) *Mix'd*; ſuch as conſiſt of two or more *heterogeneous Subſtances*. (3.) *Animate* are thoſe which have *Life* and *Senſe*, as *Animals*, *Beaſts*, *Fiſh*, *Men*, &c. (4.) *Inanimate*; thoſe which have no *Life* or *Senſe*, as *Stones*, *Earth*, *Water*, &c. (5.) *Vegetable*;

Mix'd.
Animate.
Inanimate.

(5.) *Vegetable*; ſuch as are poſſeſs'd with a *Power* of *Growth*, *Increaſe*, and *Production*, but without proper *Life* and *Senſe*, as *Plants*, *Herbs*, and *Trees*. *Vegetable.*

(6.) *Rational*; ſuch as are endow'd with the Faculty of *Reaſon* and *Intelligence*, as *Angels* and *Men*, and even *Brutes* too, in ſome Degree: All others are call'd *Irrational*, or *devoid* of *Reaſon*. *Rational.*

OF *Modes*, which are alſo called the *Qualities*, *Attributes*, and *Accidents* of Being or Subſtance, there are reckoned the following Kinds. (1.) *Eſſential*; that which belongs to the very Eſſence or Nature of the Subſtance or Subject in which it is; and this is either *primary*, as *Roundneſs* in a *Globe*; or *ſecondary*, which is conſequent upon the other, as *Volubility* or *Aptneſs* to roll: The firſt is call'd the *Difference*, the latter the *Property* of the *Body* or *Globe*. (2.) *Accidental*; that which is not *neceſſary* to the Being of the Thing, but may be wanting, and yet the *Nature* of the *Subject* remain the *ſame*; as *Smoothneſs* or *Roughneſs*, *Largeneſs* or *Smallneſs*, this or that *Colour*, *Motion* or *Reſt*, in a *Globe* or *Bowl*: Theſe *Modes* are properly call'd *Accidents* of *Bodies*. *Of Modes: Eſſential; as Difference and Property.* *Accidental; properly call'd Accidents.*

Modes are farther divided into (3.) *Abſolute Modes*; an *abſolute Mode* is that which belongs to its Subject *without reſpect* to any other Being whatſoever, as *Size*, *Motion*, &c. in a *Globe*. (4.) *Relative Modes* are deriv'd from *Compariſon* of *one Being* with *others*; and theſe are the *Affections* of the *abſolute Modes*, as *Greatneſs* and *Smallneſs* of *Size*, and *Swiftneſs* and *Slowneſs* of *Motion*; which are only ſo in *Reſpect* or *Compariſon* of the *Size* or *Motion* of other Things. *Abſolute.* *Relative.*

(5.) *Intrinſic Modes* are ſuch as are *inherent* in the *Subject itſelf*, as *Roundneſs*, *Size*, *Motion*, *Reſt*, &c. in a *Globe*. But (6.) *Extrinſic Modes* are ſuch as derive their *Being* from other Beings *without the Subject*, as *Vicinity* or *Nearneſs*, or *Diſtance*, *Affinity* or *Relation*, &c. (7.) Some reckon *Action*, and (8.) *Paſſion*, or *ſuffering* the *Action*, among the *Modes* of *Exiſtence*, as they doubtleſs are. (9.) *Natural* or *Phyſical Modes* are ſuch as are deriv'd from *Nature*, as the *Shape* and *Senſes* of Animals. But (10.) *Supernatural Modes* are ſuch as *reſult* from ſomething *above the Power of Nature*, as *Inſpiration*, &c. (11.) There are not only *Modes* of *Subſtances*, but of *Modes* alſo them- *Intrinſic.* *Extrinſic.* *Action.* *Paſſion.* *Natural or Phyſical.* *Supernatural.* *Modes of Modes.*

themſelves: For when I ſay, *A Man walks gracefully*, 'tis plain *Motion* is his *Mode* at that Time; but *Walking* is a particular *Mode* or *Manner* of his *Motion*, and *gracefully* is ſtill a farther *Mode* of *Walking*.

Of the Five Predicables.

THE Ancients, and from them the *Schools* of ſome later Ages, have made a great Noiſe about their *Predicables*, and *Predicaments* or *Categories*. By *Predicables* they mean ſuch *common Words* or *Qualities* as might be *predicated* or aſſerted of divers Things or Subjects, as *Animal* may be predicated of *Man*, *Beaſt*, *Fowl*, &c. Of theſe *Predicables* they reckon'd five Kinds, *viz.* (1.) *Genus*, or *Kind*. (2.) *Species*, or *Particulars* of each *Kind*. (3.) *Difference*, or that *Quality* which makes one Thing of a *different* Nature from another. (4.) *Property*, as before explained. (5.) *Accident*.

Genus. *Species.* *Difference.* *Property.* *Accident.*

Of the ten Predicaments. What they be.

BY *Predicaments* they underſtood an *orderly Series of Words*, which expreſs'd *ſimple Ideas or Things*; of theſe *Predicaments* they number'd ten, *viz. Subſtance*, *Quantity*, *Quality*, *Relation*, *Action*, *Paſſion*, *Where*, *When*, *Situation* and *Cloathing*. But this ten-fold Diviſion of Things the *Modern Logicians* reject, as *looſe*, *injudicious*, and even *ridiculous*.

Rejected by the Moderns.

Of Non entity, or Not-being. Is two-fold.

HAVING thus view'd *Being* or *Subſtance* both *abſolutely* and *variouſly modified*, we ſhall juſt reflect on the Nature of *Not-being*, or *Non-entity*. This is of a *two-fold* Conſideration, as it may be in reſpect both of *Mode* and *Subſtance*. For (1.) there may be a *Non-entity* of *Subſtance* (and conſequently of the *Modes*) and this is call'd pure *Nihility*, or *meer Nothing*; and this in a *Phyſical Senſe* is call'd a *Vacuum* alſo. (2.) There may be a *Non-entity* of *Modes* only; and that either of ſuch as *naturally* belong to the Subject; as of the *Sight*, *Hearing*, &c. in a *blind* and *deaf* Man, and this is call'd *Privation*: Or it is of *Modes* not *eſſential* to the *Subject*; as *Learning*, *Riches*, &c. in a *Mechanic*, and this is call'd *Negation*. Now 'tis plain a great Number of our *Notions* will fall under the Claſs of *Non-entities*, as *Sin*, *Darkneſs*, &c. and ſome have caſt hither all the *Relative Modes*, or *Relations*, and all others which they call *meer Creatures* of the Mind. But how juſtly, let better Judges determine.

Of Subſtances, as Nihility or Vacuum.

Or of Modes only.

Privation.

Negation.

Being,

Being, *Not-being*, and the *Modes* thereof being considered, we are naturally led to a *Contemplation* of the *Ideas* of those Things in our Minds. And in doing this, we shall consider their various Kinds according to (1.) their *Original*; (2.) their *Nature*; (3.) their *Objects*; and (4.) their *Qualities*. For this four-fold Division will easily comprise them all. *Of Ideas.*

WITH respect to the *Original* of *Ideas*, they will be (1.) *Sensible* or *corporeal Ideas*, as being derived originally from *Bodies* by the *Senses*; such are all the *Ideas* of *Colours*, *Sounds*, *Tastes*, *Figures*, *Shapes*, *Motions*, and all we call *sensible Qualities*. (2.) *Mental* or *Intellectual Ideas*; such as we gain by *Reflection* on the *Actions* of our *Minds*, and observing all that passeth there. Such are the *Ideas* of *Thought*, *Assent*, *Dissent*, *Judging*, *Reason*, *Knowledge*, *Mind*, *Will*, *Love*, *Fear*, *Hope*, &c. (3.) *Abstracted Ideas*; these are acquired by that *Faculty* of the *Mind*, call'd *Abstraction*. Such are *Cause*, *Effect*, *Likeness*, *Unlikeness*, *Subject*, *Object*, *Identity*, *Contrariety*, and *Terms* of *Arts* and *Sciences*. But these *Abstracted Ideas* are too much implied in the other two of *Sensible* and *Intellectual*, to make a Distinction of *Originals*. *Ideas divided with respect to their Original.* *Sensible or Corporeal Ideas.* *Mental, or Intellectual Ideas.* *Abstracted Ideas.*

Ideas, with respect to their *Natures*, are *Simple* and *Complex*, *Compound* and *Collective Ideas*. (1.) A *Simple Idea* is one *uniform* and *indivisible Idea*, which the Mind cannot distinguish into *two* or *more*: As the *Ideas* of *sweet*, *bitter*, *Cold*, *Heat*, *white*, *red*, *hard*, *soft*, *Thought*, *Will*, *Wish*, &c. (2.) A *Complex Idea* is made by *joining two* or *more simple ones* together; as a *Square*, *Triangle*, *Cube*, *Pen*, a *Table*, *Reading*, *Body*, a *Man*, an *Angel*, a *swift Horse*, &c. and every Thing that can be divided by the Mind into *two* or *more Ideas*. (3.) A *Compound Idea* is such as contains several *distinct* and *simple Ideas* of a *different* Kind. Thus *Man* is a *Compound* of *Body* and *Spirit*; *Mithridate* is a Medicine *compounded* of many *different Ingredients*; *Harmony* of *different Sounds united*, &c. Which yet are look'd upon often as *distinct* and *single Beings*. (4.) A *Collective Idea* is when a Number of *Ideas* of the *same Kind* are united together, and consider'd in one View; as an *Army* of *Men*; a *Flock* of *Sheep*; a *Dictionary* of *Words*; a *Nosegay* of *Flowers*; a *Grove* of *Trees*, &c. *With respect to their Nature.* *Simple Ideas.* *Complex Ideas.* *Compound Ideas.* *Collective Ideas.*

Ideas,

Ideas divided with reſpect to their Objects.

Particular Ideas.

Ideas, according to their *Objects*, may be divided into *Particular* and *Univerſal*, *Real* or *Imaginary*. (1.) *Particular Ideas* repreſent *ſingle Objects* either in a *vague* and *indeterminate manner*, as *ſome Man*, *one Time*, *ſome one City*, any *Horſe*, &c. theſe the Schools call the *Vague Individual Ideas:* Or elſe in a *determinate Manner*; as *Cicero* the Orator, *Peter* the Apoſtle, this *Book*, that *River*, the *New-Foreſt*, the City of *London*, &c. (2.) An *Univerſal Idea* is that which repreſents a *Common Nature*, agreeing to ſeveral *particular Things*, as a *Man*, a *Horſe*, a *Book*. Theſe are alſo diſtinguiſhed into *General* and *Special*; the *General Ideas* are of the *Genus* or *primary* common Kind, which includes other common Natures; as *Animal* is a *Genus*, becauſe incluſive of all the *common Natures* of *Animals*. The *Special Ideas* are thoſe of the *Species*, which is a *common Nature* agreeing to ſeveral *Individial Beings*; thus *Horſe* agrees to *Trot*, *Dobbin*, &c. *Man* to *Peter*, *Paul*, *John*, &c. *City* to *London*, *Paris*, &c. Whence 'tis eaſy to obſerve the ſame *Idea* may be ſometimes a *Genus*, and at others a *Species*. (3.) *Real Ideas* are of Objects which do *really exiſt* in *Nature*; but (4.) *Imaginary Ideas* are of thoſe things which do not exiſt in that particular Manner as we conceive them in the *Idea*; as a *Caſtle in the Air*, a *Centaur*, *Chimæra*, *Satyr*, *Sea of Fire*, &c.

Univerſal Ideas are General or Special.

Genus, what.

Species, what.

Real Ideas.

Imaginary Ideas.

The Diviſion of Ideas with reſpect to their Qualities.

Ideas clear and diſtinct, obſcure and confuſed.

Vulgar and learned Ideas.

The laſt Diviſion of *Ideas* is that with reſpect to their *Qualities*; wherein they are ſaid to be *clear* and *diſtinct*; or *obſcure* and *confuſed*; *vulgar* or *learned*; *perfect* or *imperfect*; *true* or *falſe*. (1.) A *clear* and *diſtinct Idea* is that which repreſents the Object to the Mind in a *free and ſeparate View*, with full *Evidence* and *Strength*, plainly diſtinguiſhing it from every other Object. An *obſcure* and *confuſed Idea* repreſents the Object *faintly*, *imperfectly*, and confounded or mingled with others. Thus the *Sky* and the *Sea* exhibit *clear* and *diſtinct Ideas* near at hand; but *obſcure* and *confuſed* in a hazy Day near the *Horizon*. (2.) *Vulgar Ideas* are of the moſt common and ſenſible Appearances contain'd in the Objects; as of the ſplendid *Colours* and *Form* of the *Rain-bow:* But *learned Ideas* repreſent the more intimate *Nature*, *Properties*, *Cauſes*, and *Effects* of Things; as a *Philoſopher's*

Idea of the various Reflections and Refractions of Sun-Beams in Drops of falling Rain, and the *Geneſis* of the *Rain-bow* from thence. (3.) *Perfect* or *Adequate Ideas* repreſent their *archetypical Objects*, *compleatly* and *perfectly*, or *fully* and *entire*; as thoſe of a *Square* or *Triangle*; *all the Parts* whereof are *evident*: But *Imperfect* or *Inadequate Ideas* repreſent their Objects *partially*, *incompleatly*, and *not entire*. As that of a *Cube*, when you ſee *only the ſquare Side* thereof; or that of a *Figure* of a *thouſand Sides and Angles*; the *Powers* of the *Magnet*, &c. (4.) *Ideas* are *true*, when they are conformable to the Objects, and repreſent them *juſt* and *ſimply* ſuch as they really are; otherwiſe they are *falſe Ideas*. As when a Man in the *Jaundice* ſees *all Things yellow*; or the *crooked Appearance* of a *ſtrait Stick* in the Water; or the *Sun* or *Moon* riſing *bigger* than in the *Meridian*.

Perfect and adequate Ideas, and the contrary.

True and falſe Ideas.

THUS we have taken a ſuccinct View of *Subſtances* and *Modes*, as they exiſt without us, and form the *various material* and *modified World*; and alſo of the *Ideas* which they excite within us, and which conſtitute that noble *Variety* and *Treaſure* of *Knowledge* and *Science* in the Mind: 'Tis now in order requiſite that we take Notice of the *Ways* and *Means*, whereby we are able to expreſs theſe *Ideas* and *Sentiments* of the Mind, and to communicate them to others: And this is by the Uſe of *Speech* and *Language*.

A Tranſition to Language, or Words and Terms.

Language has been already treated of ſo far as it has a *Grammatical* and *Rhetorical* Regard. It remains now to be conſider'd with reſpect to its Uſe in *Logic* or the *Art* of *Reaſoning*. And thus we muſt conſider *Words* and *Terms*, as *Marks*, *Characters*, or *Symbols* of *Ideas*, either *Vocal* or *Written*, and which are aptly expreſſive of their *different Natures* and *Properties*, and render them *intelligible* to others.

Of Language conſider'd with regard to its Uſe in Logic.

AND as *Words* are the Medium of *Knowledge* and *Truth*, ſo it often happens they are Sources of *Miſtake* and *Error*: And that (1.) becauſe there is no neceſſary *Connexion* or *Relation* between our *Ideas* and *Words*, but Words are arbitrarily impoſed by different People; and who therefore in different Sounds expreſs the *ſame Thing*; as *Albus* in *Latin*, *Blanc* in *French*, *Leucos* in *Greek*, and *White* in *Engliſh*. (2.) Becauſe *different ſimple Ideas* are not always expreſs'd by appropriate

Words the Means not only of Knowledge, but of Error ſometimes. The principal Sources thereof.

propriate ſingle Words, but oftentimes *many* by the *ſame Word*. As the Words *Sweet* and *Sharp* are both applied to the Objects of different Senſes, *viz.* of *Hearing* and *Taſting*. (3.) Becauſe we cannot always expreſs the *ſimple Ideas* in *complex ones*, by *peculiar* and *appropriated* Words; as we do in the Apple *Bitter-ſweet*. (4.) Becauſe many Words are uſed in their *original Senſe*, and yet their *Etymology* is *different*, *obſcure* or *uncertain*. (5.) Becauſe many Words are uſed in a Senſe entirely different from that in the *original Language*. Thus the Word *Spirit* with us is from *Spiritus*, *Breath* or *Air*, from *ſpiro*, *to breathe*, in *Latin*; the ſame alſo is in the *Greek* and *Hebrew* for the ſame Word. (6.) The laſt great Cauſe of Error I ſhall mention, is the ſignifying *many Ideas*, of *different Natures*, by *one* and the *ſame Word*: As the Word *Gate* ſignifies *a great Door*, the *Mien* in walking, *&c.*

Of the various Kinds of Words and Terms.

FROM whence 'tis evident, if we would avoid *Miſtake* and *Error* in our *Purſuit* after *Truth*, we muſt take good Heed to the *Uſe* and *Meaning* of *Words* and *Terms*, and be acquainted with their various Kinds. The *Kinds* of Words are thoſe which follow: (1.) *Poſitive* and *Negative*. (2.) *Simple* and *Complex*. (3.) *Common* and *Proper*. (4.) *Univocal* and *Equivocal*. (5.) *Concrete* and *Abſtract Terms*. Of all which in their Order.

Of Poſitive and Negative Terms.

TERMS are either *Poſitive* or *Negative*. *Poſitive Words* have an *affirmative Senſe*, and ſignify ſome *Poſitive Idea*; as *Art*, *Life*, *Senſe*, *Motion*, &c. But *negative Terms* exhibit *negative Ideas*, or have a *negatory Senſe* expreſs'd by ſome *Particle* or *Prepoſition* of *Denying* join'd to them; as *Artleſs*, *Lifeleſs*, *Senſeleſs*, *Nonſenſe*, &c. Thus the Poſitive Terms *finite*, *immoveable*, *irregular*, &c. are render'd *Negative* by the Particles *In*, *Im*, *Ir*; as *infinite*, *immoveable*, *irregular*, &c. But in many Caſes *Poſitive Words* have *Negative Significations*, and the *contrary*, which is a great *Imperfection* and *Unhappineſs* in Language.

Of Simple and Complex Terms.

THE *ſecond Diviſion* of Terms is into *Simple* and *Complex*. A *Simple Term* is *one Word*; a *Complex Term* is when more Words are uſed to ſignify *one Thing*. Thus, *the ſecond Emperor of Rome* excites the *Idea* but of *one Man*, viz. *Auguſtus*. Of this ſort are

are moſt *Circumlocutions*. Alſo many *ſimple Words* are *complex* in *Senſe*; as thoſe which contain *complex*, *compound*, and *collective Ideas*; as *Man*, *Mithridate*, *Army*, &c. which all contain a *Variety* of *Ideas*; as are moſt of our *Moral* Words and *Natural* Ideas, *Religion*, *Piety*, *Loyalty*, *Knavery*, *Theft*, &c. Some *Terms* are *complex* both in *Words* and *Senſe*; as, *a fierce Dog*, *a pious Man*; which Expreſſions excite an *Idea* not only of the *Creatures*, but their peculiar *Qualities* alſo.

Of proper and common Words.

AGAIN, *Words* and *Names* are either *Proper* or *Common*, which are alſo call'd Appellatives; for both which ſee the Chapter of *Grammar*. Only here obſerve (1.) That *Proper Names* in ſome Senſe may become *Common*. As *Cæſar* was the *proper Name* of *Julius* the firſt *Roman* Emperor, but became afterwards the *common Name* of all the following *Emperors*. (2.) A *common Name* is ſometimes uſed as *a proper one*; thus when we in *Great Britain* ſay, *the King*, *the Prince*, we intend properly King *George*, and *Frederic* Prince of *Wales*. (3.) That any *common Name* is made *proper*, by the Addition of ſome Term of a *particular* and *determinate Meaning*; as, the *preſent* Pope, the King of *Great Britain*, the *Roman* Orator, *this* Book, *that* Knife, *&c.*

Of Univocal and Equivocal Words.

THE fourth Diviſion of Words and Terms is into *Univocal* and *Equivocal*. *Univocal Words* are ſuch as ſignify but *one Idea*, or at leaſt but *one ſort* of Thing; as *Book*, *Bible*, *Fiſh*, *Houſe*, *Elephant*. But *Equivocal Words* are ſuch as ſignify *two or more different Ideas*, or *different ſorts* of Objects: Thus the Word *Head* ſignifies the Head of a *Nail* or *Pin*, as well as of an *Animal*. So the Words *Nail*, *Poſt*, *Church*, *Grave*, *High*, *Sweet*, *Sharp*, &c. are *Equivocal*, as ſignifying ſeveral different Things. And when Perſons in Diſpute uſe *Equivocal* Words with a Deſign to *puzzle* or *deceive*, it is call'd *Equivocation*. Note, that as theſe *Equivocal* Terms are call'd *Homonymous* or *Ambiguous*; ſo Words which ſignify the ſame thing are called *Synonymous*, as *Faith*, *Belief*, *Credit*, *Aſſent*, which all import the ſame *Idea*, or *Action* of the Mind.

Equivocation, what.

Homonymous and Synonymous Terms.

Of the ſeveral Kinds of Equivocal Words and Terms.

SINCE *Equivocal Words* are of the *greateſt Importance* to be well underſtood, and their various Senſes diſtinctly known in all *polemical Affairs*, or *Matters* of

of *Diſputation*; I ſhall briefly here enumerate the ſeveral Kinds thereof. And (1.) Some are *Equivocal* in *Sound* only; as *Rein*, of a Bridle; *Reign*, of a King; *Rain*, a Shower: *Might*, Strength; *Mite*, a little Animal: So *write*, *Wright*, *right*, &c. (2.) Some in *Writing* only; as to *tear* in Pieces is ſpell'd and wrote the ſame as a *Tear*; and to *lead*, the ſame as *Lead*, a *Metal*. *Bowl* a Ball, and *Bowl* a Veſſel, are wrote the ſame. (3.) Some are *equivocal* in reſpect of their *Extent of Meaning*, being ſometimes taken in a *larger* and more *general*, and ſometimes in a more *particular* and *reſtrain'd* Senſe. Thus *Sin* and *Virtue* are ſometimes uſed to ſignify particular *Actions* and *Faculties*; and ſometimes the *general Nature* of all *Good* and *Evil*. (4.) Some are ſo in regard of their *Original* and *Modern* or *Cuſtomary Uſe*. Thus *Spirit* originally ſignified the *Breath*, *Air* or *Wind*; but it is likewiſe uſed to ſignify *inviſible Beings*. *Geography originally* ſignifies a *Deſcription of the Earth* only, but by *Cuſtom* it generally includes that of both *Earth* and *Sea*. The ſame may be obſerv'd of *Theology*, *Aſtronomy*, *Geometry*, &c. (5.) Some by reaſon of a *Literal* and *Figurative Senſe*. Thus, by a *Metaphor*, God is ſaid to *repent*, *grieve*, &c. By the Figure *Epitrope*, *Solomon* ſays, *Rejoice*, *O young Man*, and *let thine Heart chear thee*, &c. (6.) Some on account of a *common* and *ſcientific Meaning*. Thus *Paſſion* vulgarly ſignifies *Anger* or *Wrath*; in Morality the *Affections* of the Mind, as *Love*, *Joy*, *Fear*, *Sorrow*, &c. and *Philoſophically* it ſignifies the *receiving any Action* impreſſed: So the Word *ſimple* in the common Senſe is *fooliſh*; but in *Science*, it is *ſingle*. (7.) Some on account of an *abſolute* and *comparative Senſe*. As when our Saviour ſays, *Be ye perfect as your heavenly Father is perfect*. Theſe are the principal Kinds of *equivocal* or *ambiguous* Words, which have their *Sources* from *Chance*, *Error*, *Time*, *Cuſtom*, *Figure*, *Occaſion*, *Intereſt*, &c.

Some in Sound.

Others in Writing.

Some in Extent of Meaning.

Some by original and cuſtomary Uſe.

Some by a Figurative and Literal Senſe.

Some by a common and ſcientific Meaning.

Some by an Abſolute and Comparative one.

Their Sources.

Tranſition to Definition.

THE Nature of *Subſtances*, *Modes* or *Qualities*, together with their Ideas and the Words which expreſs them, being all conſider'd, and diſcourſed of; it remains that we now approach to the *Uſe* that is to be made thereof in the *Art* of *Diſputation*. In order thereto, the firſt thing neceſſary is *Definition*; ſince

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before we pretend to *hold an Argument* or *Diſcourſe*, with a view of gaining or forcing *Belief*, 'tis abſolutely neceſſary that thoſe *Words* and *Things*, on which the *Force* of the *Argument* depends, be firſt well *defin'd* and *explain'd*, before they can be underſtood. For ſince *Belief* is only the *Aſſent* of the *Mind* to the *Truth* or *Falſity* of a Propoſition advanced by another in a way of *Reaſoning*, according as it appears *evident* and *intelligible*, 'tis eaſy to obſerve, (1.) That *Faith* is not a *Matter of Choice*, or *dependent* on our *Will*, but follows neceſſarily the *Evidence* and *Probability* of *Reaſoning*. Therefore (2.) when we do not underſtand the *Terms* and *Subject* of *Argumentation*, we can in no wiſe be ſaid to believe the *Inferences* or *Concluſions* form'd from thence.

Definition wherefore neceſſary, both of Words and Things.

Faith, or Belief, what.

Not voluntary.

DEFINITION is twofold; one of the *Name*, the other of the *Thing*. A *Definition of the Name or Word*, is the *explaining* and *determining* preciſely what *Senſe*, *Meaning*, or *Signification* it is uſed in; or what *Idea* or *Object* is meant by it; and that by ſuch *Circumſtances* or *Properties* thereof, that it may be diſtinguiſhed ſufficiently from all other Objects. Thus, to *define* the Word *Patient*, the *Divine* or *Moraliſt* would ſay, *it is the enduring or ſuffering Injuries and Afflictions quietly.* The *Phyſician* defines it, a *Perſon diſeas'd and under his Direction for Cure:* But the *Philoſopher* defines it, *any Body which receiveth Action* or *Impulſe.*

Definition of the Name or Word.

THE *Directions* or *Rules* relating to the *Definition* of *Names* are principally the following: (1.) *No Words ſhould be choſen but ſuch as have Ideas*; for though the Diſcourſe be ſounding and *verboſe*, yet if it want *Ideas*, or *Subſtance*, it will be trifling, *immaterial*, and conclude Nothing. Much of this Nature may be obſerv'd in *Harangues* on the *human Soul.* (2.) *We muſt not ſuppoſe the Nature of Things as different as their Names.* Thus it would be ridiculous to diſpute whether *Dandelion* be an *Herb* or *Weed*, or *Potherb* or *Sallad*; ſince they may all denote the ſame Species of Being. (3.) *We ſhould not think the Nature of two Things the ſame, becauſe they have the ſame Name.* Thus ſpeaking of the *Life* of *Plants*, and the *Life of Animals*, though the *Name* be the *ſame*, the *Idea* muſt be conſider'd as entirely different

The Rules for the Definition of the Name.

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ent in each Subject: And *Heat* in the *Fire* and in our *Flesh* must have very *different Definitions.* (4.) *Learn the true Meaning of Words and Terms* from *learned Men*, and *learned Books*, that you may not be led into Error through *Vulgarisms* and *Prejudice.* (5.) *Use plain and intelligible Words; and shun those of an obscure ambiguous Meaning*, that your *Candour* and *Ingenuity* be not *suspected.* (6.) *Let Words be defined in their proper and native Sense, in which Mankind use them, as near as possible*; and in all your *Discourse* keep close to the Sense defined, and first determined.

The Definition of the Thing.

THE *Definition of the Thing* is a *Description of its general Nature and specific Properties, whereby the Idea of that Thing is differenced and distinguished from the Idea of any other.* Thus if I would define what *Wine* is, I say, *It is the Juice express'd from Grapes.*

The Rules relating thereto.

THE Rules for a good *Definition of the Thing* are such as here follow: (1.) It must include the *nearest Genus*, or *general Nature*, of the Thing. So above, though *Wine* be a *Liquid*, yet that is a more remote *Genus* than *Juice*; and *Substance* would be still more remote than a *Liquid*; therefore *Juice*, as being the *nearest Genus*, was used in the *Definition* of *Wine.* (2.) That *primary Attribute* or *Quality* of the Thing, which determines its *specific Difference*, must be carefully mention'd. Thus to say, *Wine is the Juice of a Fruit*, is too *general* a Difference; for though 'tis certain from thence, that 'tis not the *Juice* of an *Herb*, yet it may be *Cyder*, *Perry*, &c. as being the *Juices of Fruits* also: But to say, 'tis a Juice *express'd from Grapes*, distinguishes its *special Nature*, and differences it from all other *Juices.* (3.) *It must be universal* or *adequate, so as to agree to all the particular Species or Individuals belonging to that Idea:* So the *Juice of the Grape* agrees to all proper *Wines*, whether *Red*, *White*, *Rhenish*, *Florence*, &c. (4.) *It must be peculiar to the Thing defined, and agree to that alone:* So the *Juice of the Grape* agrees to no other Being but *Wine.* (5.) *It ought to be clear and plain, and free from obscure and equivocal Words and Terms*; the *Design* of the *Definition* being to lead us into the *Knowledge* of the Thing defin'd. (6.) *It ought to be short, and free from Tautology and superfluous Words.* (7.) *The Definition ought to be such as will* reciprocate

with

with the Thing defined. Thus *Wine* is the *Juice of Grapes*; and we may alſo ſay, the *Juice of Grapes* is *Wine.* (8.) *The Definition of the Thing ſhould be really diſtinct and different from the Definition of the Name.*

Of Diviſion and Diſtribution.

WE come now to treat of *Diviſion* and *Diſtribution*: For being able to *define a Thing* is not ſufficient in Matters of *Reaſoning*; but we muſt be well inſtructed in the manner of *dividing* and *diſtributing* whole *Ideas* into their proper *Parts* and *Species.* In order to this, we muſt conſider that there are two kinds of *whole Ideas.* (1.) An *Integral Whole*, when all the Parts are diſtinct from each other, and may ſubſiſt apart: As the *Head*, the *Limbs*, and *Trunk* of an *animal Body.* Thus *Digits* are the integral Parts of a Number; the *Spring*, *Wheels*, *Ballance*, *Axle*, *Pinion*, *Dial-Plate* and *Caſe*, are the *integral Parts* of a *Watch.* This ſort of Parts conſtitutes the *Compleatneſs* of any Subject: And an *Enumeration of all thoſe Parts* is call'd *Diviſion.* (2.) There is a *logical* or *univerſal Whole*; and the *Parts* of it are all the *particular Ideas* to which this *univerſal Nature* extends: So a *Species* is a *Whole*, as *Horſe*; and the *Individuals*, as *Trot*, *Dobin*, *Duke*, &c. are the *Parts.* Thus if the *Genus* be the *Whole*, the *Species* will be the *Parts.* A *proper and diſtinct Enumeration* of *theſe Parts* of a Subject, is call'd *Diſtribution.*

An Integral Whole, what.

Compleatneſs, what.

Diviſion.

Logical Whole, what.

Diſtribution.

The Rules for good Diviſion and Diſtribution.

SINCE then *Diviſion* and *Diſtribution* is an Explication of the Nature of a Thing by a diſtinct *Conſideration* of its *integral* or *logical Parts*, it will be neceſſary to lay down the following *Rules* relating thereto. (1.) *The* Parts *ſeverally taken muſt be leſs than the* Whole; *but taken collectively* (or together) they muſt be preciſely equal thereto. (2.) Begin with, or firſt conſider the *larger* and more *immediate Parts*; and not divide at once into the *more minute* and *remote Parts.* (3.) The Parts ought to be *ſeparate* and *different*, that *no one* may be *contained in another.* (4.) Divide every Subject with regard to the ſpecial Deſign you have in View. (5.) Let not *Subdiviſions* (or a *ſecondary Diviſion* of Parts into others ſtill leſs) be *too numerous* without *Neceſſity*; leſt it induce *Confuſion*, and make you ſeem *affectedly pedantic* and *impertinent.* (6.) Your Diviſion of Things ſhould be *juſtly* according to *their Natures*; avoiding all the *Jar-*

gon of *Duplicities*, *Triplicities*, *Dichotomies*, *Sevens*, &c. which *Nature* never affects. These Rules equally ſerve for Diſtribution, if, inſtead of *Parts*, you read *Species* or *Individuals*.

Special Rules to direct and aſſiſt our Conception of Things.

BEFORE we leave this firſt *general Head*, or *Part of Logic*, viz. *Conception*, it will be very proper to lay down ſome Rules, directing and aſſiſting us in that Act of the Mind, whereby we *perceive* and *obtain* our *Ideas*. (1.) Endeavour to get a *clear* and *diſtinct Conception* of Things, juſt ſuch as they are in their own Natures. Thus *Optic Glaſſes* take off the *dazling fallacious Luſtre* of Objects, bring diſtant ones to a *near* and *diſtinct View*, and ſhew the *unſeen native Beauties* and *Parts* of the moſt minute Animals. (2.) *Conceive* of Things *compleatly*, in all *their Parts*; thus the *Anatomical Knife* diſſects an *Animal Body*, and ſeparates the *Membranes*, *Muſcles*, *Organs*, *Arteries*, *Veins*, *Nerves*, &c. and ſhews the ſeveral *Parts* which *compleat* the *Whole*. (3.) Conceive of Things *comprehenſively*, in all their *Properties* and *Relations*; like as a *Terreſtrial Globe*, turning on its *Axis*, ſhews all the Variety of *Lands* and *Seas*, *Kingdoms* and *Nations*, and their various *Situations* and *Relations* to each other. (4.) Conceive of Things *extenſively*, in all their *Kinds*, *Species*, and *Individuals*: As a *Priſm* of *Glaſs*, refracting the *Sun-Beams*, ſeparates the *different Kinds* of *Colours*, *red*, *orange*, *yellow*, *green*, *blue*, *indigo*, *violet*, and diſtributes them in order on the *painted Spectrum*. (5.) Conceive of Things *orderly*, and in a proper *Method*; that your *Ideas* be diſpos'd like Books in a *well-contrived Library*, according to their *Sizes* and *Subjects*. Proceed we now to the ſecond great Part of *Logic*, viz.

Of the ſecond great Part of Logic, Judgment.

JUDGMENT; this has been already defined as an *Act* of the *Mind*; but as a *great Part* of *Logic*, it muſt be defined, *The Doctrine of Propoſitions in general, with regard to their Nature and Kinds.* For as *Ideas* are the Reſult of *Conception* or *Apprehenſion*, ſo *Propoſitions* are the Effects of *Judgment*.

A Propoſition defin'd.

A *Propoſition* is a Sentence wherein two or more *Ideas* or *Terms* are join'd by one *Affirmation* or *Negation*. As *Plato* was a *Philoſopher*. *Deſcartes* was not ſo good a *Philoſopher* as Sir *Iſaac Newton*.

THERE

THERE are three Things neceſſary to the *Nature* and *Conſtitution* of a *Propoſition*, viz. (1.) The *Subject*; or that of which any Thing is *affirmed* or *denied*. As *Plato* and *Deſcartes* in the foregoing *Examples*. (2.) The *Predicate*; or that which is affirmed or denied of the *Subject*. Thus *Philoſopher* is the *Predicate* of the firſt *Propoſition*; and, *ſo good a Philoſopher as Sir* Iſaac Newton, in the latter one. The *Subject* and *Predicate*, taken together, are call'd the *Matter* of the *Propoſition*. (3.) The *Copula*; this is call'd the *Form* and *Mode* of a *Propoſition*, as it repreſents the Manner of it in *affirming* or *denying*; and is expreſs'd by the *Words* or *Particles*, *am*, *art*, *is*, *are*, &c. or, *am not*, *art not*, *is not*, *are not*, &c. or, *may*, *can*, *ought*, *ſhould*, *muſt be*, &c. and the ſame join'd with *not*. *The Parts thereof.* *The Subject.* *The Predicate.* *The Copula.*

Propoſitions, according to their *Subject*, *Predicate*, and *Copula*, are diſtributed into various Kinds, as they are alſo with reſpect to their *Nature*, *Purport*, and *Evidence*. *Propoſitions how diſtinguiſh'd.*

Propoſitions, in regard of their *Subject*, are of four Kinds, *viz.* (1.) *Univerſal*; when the *Subject* is taken in its *whole Extenſion*, and hath *Univerſality* ſignified by proper Words, as, *all*, *every*, *no*, *none*, &c. as, *All Men muſt die*; *no Man knows all Things*. (2.) *Particular*; when a *Subject* is not taken in its *whole Extenſion*; and is denoted by Words of *Particularity*, as *ſome*, *many*, *a few*, &c. as, *Some Men are born blind*: *Many Notions of God are erroneous*: *Few Men are truly wiſe*. (3.) A *ſingle Propoſition*; when the Subject is a *ſingular* and *individual Term* or *Idea*. As, *Deſcartes was an ingenious Mathematician*: Sir *Iſaac Newton excell'd all*: *This Day is very fine*. (4.) *Indefinite*; when the *Subject* has no Note of *Univerſality* or *Particularity* affix'd to it, and yet is *general* in its Nature; as, *Men are rational Creatures*; *Stones have no Senſation*. *Propoſitions in regard of the Subject are Univerſal.* *Particular.* *Single.* *Indefinite.*

Propoſitions, with reſpect to their *Copula*, are either (1.) *Affirmative*; when the *Copula* is one of thoſe Sorts of Words, which *affirm* or *aſſert* ſomething *poſitively* of the Subject, as, *All Men are Sinners*: *There will be a Reſurrection of Men's Bodies*. Or, (2.) *Negative*; when the *Predicate* is *denied* of the *Subject*, *Of Affirmative and Negative Propoſitions.*

by ſome *Particle* of *Negation*, as, *Man is not innocent: No Man is immortal.*

Of Pure and Modal Propoſitions.

Propoſitions, in regard of the *Predicate*, are *diſtributed* into *pure* and *modal*. (1.) A *pure Propoſition* is that which *meerly* and *ſimply* expreſſes the *Predicate* connected with the *Subject*, as, *Man is an Animal.* (2.) *Modal Propoſitions* are ſuch as include alſo the *Manner* and *Way*, wherein the *Predicate* is connected with the *Subject*.

Modes of connecting the Subject and Predicate.

The *Modes* of ſuch Connection are reckon'd four. (1.) *Neceſſity*; as, *'Tis neceſſary a Globe ſhould be round.* (2.) *Contingency*; as, *A Globe may be made of Wood or Glaſs*, 'tis *indifferent* which. (3.) *Poſſibility*; as, *'Tis poſſible a Globe may be made of Water.* (4.) *Impoſſibility*; as, *'Tis impoſſible a Globe ſhould be ſquare.* But theſe *Modes*, being only *natural*, are very deficient in *Number*; ſince to them may be added *Metaphyſical*, *Moral*, *Civil*, and other *Modes* of connecting the *Predicate* with the *Subject*.

Single and compound Propoſitions defined.

Propoſitions are diſtributed into *ſingle* and *compound*, in Conſideration of their *Nature*. (1.) A *ſingle Propoſition* is that which hath only *one Subject*, and *one Predicate*. If theſe contain *ſimple Ideas*, or *ſimple Terms*, the *Propoſition* will be purely *ſimple*; as, *Man is riſible: Virtue is deſirable.* But if the Subject or Predicate are made up of *complex Terms*, the *Propoſition* will be *complex*; as, *Every ſincere Penitent is pardoned: No Man is perfectly innocent.* (2.) A *compound Propoſition* hath *two* or *more Subjects*, or *Predicates*, or *both*, expreſſed or underſtood, as, *Riches and Honours are Snares: Men are rational and mortal: Light and Heat enliven and delight both Men, and Beaſts, and creeping Things.* And according as the Particles, *and*; *either*, *or*; *if*; *that*, *becauſe*; *as*, *ſo*; *but*, *tho'*, *yet*; *only*, *alone*; *than*; are uſed to connect the *complex Terms*, ſo the *Propoſitions* are denominated *Copulative*, *Diſjunctive*, *Conditional*, *Cauſal*, *Relative*, *Diſcretive*, *Excluſive*, *Exceptive*, *Comparative*, &c.

Several Sorts of the compound ones.

True or falſe Propoſitions defined.

Propoſitions, according to their *Senſe* or *Signification*, are diſtinguiſh'd into *true* and *falſe*. (1.) A true *Propoſition* repreſents Things as they *really* are, as, *Every Bird has Wings: Brutes are not inſenſible Machines.* (2.) A *falſe Propoſition* is that which expreſſes Things *otherwiſe* than they *truly be*, as, *Birds have no Wings:*

Brutes

Brutes are meer Machines without Senſe. The firſt of theſe *Propoſitions* we commonly call a *Truth*, the latter a *Lie* or *Falſhood*. *Truth and a Lie, what.*

Propoſitions (in the laſt Place) are divided with reſpect to their *Evidence* into *certain* and *doubtful*. *Certain and doubtful Propoſitions deſin'd.*

(1.) A *certain Propoſition* is that whoſe *Evidence* of the *Agreement* and *Diſagreement* of the *Ideas* with their *Objects*, or of the *Predicate* with the *Subject*, is ſo *ſtrong* and *plain* that we cannot forbear or delay our *Aſſent* thereto, as, *Every Circle hath a Centre: Brutes can ſee, hear, taſte, ſmell, and feel Pleaſure and Pain.* *Propoſitions* of this Kind make what we call *Knowledge*. *Knowledge, what.*

(2.) *Doubtful Propoſitions* are ſuch as have not their *Evidence* ſo *clear* and *ſtrong* as to force *Aſſent*, and by admitting *Obſcurity* therein, permit us to ſuſpend our *Belief* at Pleaſure, and abſolutely prevent *Knowledge*. As, *The Planets are inhabited: The Soul of Man is a ſpiritual Being, and ſurvives the Body.* This ſort of Propoſitions are what we call *Opinions*. *Opinion, what.*

Propoſitions, according to their *Quantity*, are *Univerſal* or *Particular*; and they are *Affirmative* or *Negative* according to their *Quality*. The *four Propoſitions* hence ariſing, the Schools denote by the *Capitals* A, E, I, O, thus: *Of Univerſal and Particular, Affirmative and Negative Propoſitions.*

A	denotes	Univerſal	*Affirmative,*	All Men are Mortal.
E	denotes	Univerſal	*Negative,*	No Men are Mortal.
I	denotes	Particular	*Affirmative,*	Some Men are Mortal.
O	denotes	Particular	*Negative,*	Some Men are not Mortal.

According to theſe Verſes.

A affirms, and E denies, both univerſally.
I affirms particularly, and O does ſo deny.

OF theſe Propoſitions, taken two together, A O or E I make a *Contradiction*, or are *contradictory*; for they can never be both *true* and both *falſe* at the ſame time. *Propoſitions Contradictory.*

A E are *Contraries*, for they cannot be both *true*, but may be both *falſe* together. *Contraries.*

I O are *Subcontraries*; theſe may be both *true* together, but cannot be both *falſe*. *Subcontraries.*

A I or E O are call'd *Subalterns*: Wherein (1.) if A or E be *true*, I or O will be *true* alſo, but not the *Subalterns.*

contrary. (2.) If I or O be *falſe*, then will A or E be ſo of courſe, but not the *contrary.* (3.) They may be ſometimes *both true*, and ſometimes *both falſe.*

Converſion of Propoſitions, what.

THE *Converſion* of *Propoſitions* is when the *Subject* and *Predicate* change their Places with Preſervation of *Truth.* This may be always done in E and I.

As { E No Spirit is an Animal. / I Some Paſſions are Evil. } *converted.* { No Animal is a Spirit. / Some Evils are Paſſions.

BUT in A and O this *Converſion* or *Reciprocation* of *Subject* and *Predicate* will not hold; unleſs in A you convert with I, thus, [a] *Every Weed is a Plant*, therefore [i] *ſome Plant is a Weed.* But in O, though you may ſay, [o] *Some Vegetable is not a Weed*, you cannot ſay reciprocally, *Some Weed is not a Vegetable.* So much for Propoſitions in themſelves conſider'd.

Of the third great Part of Logic, Argumentation, or Reaſoning.

THE Doctrine of *Ideas* and *Propoſitions* being diſpatch'd, the next *great Part of Logic* is, in Order, *Argumentation* or *Reaſoning*; for as we join *Ideas* to frame *Propoſitions*, ſo *Propoſitions* are join'd to form an *Argument* or *Syllogiſm.*

A Syllogiſm defined.

A *Syllogiſm* then is an *Argument* whereby we infer ſomething that is leſs known, from Truths which are more evident.

The Matter thereof twofold.

The *Matter* of a *Syllogiſm* is *twofold*, viz. (1.) The *remote Matter*, call'd the Terms; and (2.) The *immediate Matter*, which are the *Propoſitions.*

The Terms of a Syllogiſm, what.

THE *Terms* of a *Syllogiſm* are the *Parts* of which the *Propoſitions* do conſiſt, and into which the *Syllogiſm* is ultimately reſolved. To illuſtrate this, ſuppoſe the *Queſtion* were put, *Whether God muſt be worſhipped?* An *Argument* or *Syllogiſm* form'd in order to prove this in the *Affirmative*, hath always *three Terms.* (1.) The *greater Term*; which is the *Predicate* of the Queſtion, which here is the *Worſhip* queried. (2.) The *leſſer Term*, which is the *Subject* of the Queſtion, as here *God.* Theſe two are call'd the *extreme Terms.* (3.) The *middle Term*, which is one *arbitrarily* choſen, and diſpoſed in *two Propoſitions*, whereby to connect and ſhew the *Agreement* or *Diſagreement* of the *major* and *minor Terms* in the other *Propoſition* or *Concluſion*; and therefore this *middle Term* is ſometimes call'd the *Argument.* In this Queſtion, I take for the *middle*

Term,

Term, the *Idea* or *Notion* of a *Creator*; then the three Propoſitions of the *Syllogiſm* will ſtand thus.

Our [2] *Creator* muſt be [1] *worſhipped*;
But [3] *God* is our [2] *Creator*:
Therefore, [3] *God* muſt be [1] *worſhipped*.

IN this *Syllogiſm* the Figures, 1, 2, 3, ſhew the Places of the *Major*, *Middle*, and *Minor Terms* in the Propoſitions; and from ſuch a Diſpoſition of them, 'tis evident how natural and juſt the *Concluſion* or *Inference* is, to ſatisfy the *Queſtion*.

The Propoſitions of a Syllogiſm.

THE *immediate Matter* of a *Syllogiſm* are *three Propoſitions*. (1.) The *Major* or *Greater*, which contains the *middle Term* connected with the *Predicate* of the Queſtion, or *Major Term*. (2.) The *Minor* or *Leſſer*, which connects the *Subject* of the Queſtion with the *middle Term*; and is ſometimes call'd the *Aſſumption*. (3.) The *Concluſion*, which *infers* or *aſſerts* the *Point* in *Debate*.

Major.

Minor.

Concluſion.

Of the Figures and Moods of Syllogiſms; what they are, and how many.

IN a *Syllogiſm* we are farther to conſider the *Figure* and *Mood*. (1.) The *Figure* of a *Syllogiſm* is *the proper Diſpoſition of the middle Term with the Parts of the Queſtion*. (2.) A *Mood* is the regular Determination of Propoſitions according to *Quantity* and *Quality*, i. e. their *univerſal* or *particular Affirmation* or *Negation*. Theſe Moods are repreſented by *technical Words*, containing the *Vowels* A, E, I, O, which alone are regarded, and the *Conſonants* all neglected.

There are three Figures.

- In the *firſt* the middle Term is the Subject of the Major Propoſition, and the Predicate of the Minor. This contains four Moods, *viz.* — *Barbara*. *Celarent*. *Darii*. *Ferio*.
- In the *ſecond* the middle Term is the Predicate of both the Premiſes. This contains four Moods alſo. — *Ceſare*. *Cameſtres*. *Feſtino*. *Baroco*.
- The *third* Figure requires that the middle Term be the Subject of both the Premiſes. It has ſix Moods. — *Darapti*. *Felapton*. *Diſamis*. *Datiſi*. *Bocardo*. *Feriſon*.

First Figure. *Examples* of the MOODS *in the First Figure.*

Barbara.
I. Every [2] wicked Man is [1] miſerable;
All [3] Tyrants are [2] wicked Men;
Therefore all [3] Tyrants are [1] miſerable.

Celarent.
II. [2] They who are always in Fear are [1] not happy;
[3] Covetous Men are [2] *always in Fear*;
Therefore [3] covetous Men are [1] not happy.

Darii.
III. [2] Whatever exerts rational Actions has [1] ſome Reaſon;
Some [3] *Brutes* exert [2] rational Acts;
Therefore ſome [3] *Brutes* have [1] ſome Reaſon.

Ferio.
IV. [2] Nothing myſterious can be a [1] Part of true Religion.
[3] Some call'd religious Opinions are [2] myſterious;
Therefore [3] ſome call'd religious Opinions are [1] no Part of true Religion.

Second Figure. *Examples* of the MOODS in the *Second Figure.*

Cesare.
I. [1] Nothing ſhould be deſpiſed that is [2] God's Creature:
[3] All Inſects and Reptiles are [2] God's Creatures;
Therefore no [3] Inſect or Reptile ſhould [1] be deſpiſed.

Camestres.
II. [1] Every Part of Religion is [2] clear and plain;
No [3] myſterious Doctrine is [2] clear and plain;
Ergo, No [3] myſterious Doctrine is [1] any Part of Religion.

Feſtino.
III. [1] No Sin is [2] excuſable;
[3] Some Faults are [2] excuſable;
Ergo, [3] Some Faults are [1] not Sins.

IV. [1] Every

Ba-ro-co. IV. 1 Every Part of Religion is 2 rational;
3 Some Parts of Popery are not 2 rational;
Ergo, 3 Some Parts of Popery are not 1 Religion.

Third Figure. *Examples* of the MOODS in the *Third Figure.*

Da-rap-ti. I. 2 All Liars are 1 hated of God;
2 All Liars are 3 Men:
Ergo, 3 Some Men are 1 hated of God.

Fe-lap-ton. II. 2 None who believe in Chriſt 1 ſhall be damned;
2 All who believe in Chriſt 3 have ſinned:
Ergo, Some who 3 have ſinned ſhall not 1 be damn'd.

Di-ſa-mis. III. 2 Some Opinions are 1 ſaid to be damnable.
2 All Opinions are 3 neceſſary Acts of the Mind.
Ergo, Some 3 neceſſary Acts are 1 ſaid to be damnable.

Da-ti-ſi. IV. 2 All wiſe Men are 1 happy;
2 Some wiſe Men are 3 very poor:
Ergo, 3 Some very poor Men are 1 happy.

Bo-çar-do. V. 2 Some ſort of War is 1 not to be avoided.
2 All War is 3 bloody and hoſtile.
Ergo, Some 3 bloody Hoſtilities are 1 not to be avoided.

Fe-ri-ſon. VI. 2 No Afflictions are 1 pleaſant.
2 Some Afflictions are 3 good and neceſſary.
Ergo, Some 3 good and neceſſary Things are 1 not pleaſant.

THERE is a *fourth Figure* of *five Moods* added by ſome, but not worth mention in this Epitome. The *ſpecial Rules* of the three Figures are theſe. (1.) In the *firſt*, the *Major* Propoſition muſt always be *univerſal*, and the *Minor* Affirmative. (2.) In the *ſecond* alſo the *Major* muſt be *univerſal*, and *one* of the *Premiſes*, with the *Concluſion*, always *Negative*. (3.) In the *third*, the *Minor* muſt be *Affirmative*, and the

Three ſpecial Rules concerning the Figures.

the *Concluſion* always particular. The *Syllogiſms* hitherto treated of are *Simple*; I ſhall next take notice of

Of Complex Syllogiſms. *Complex Syllogiſms*, which are ſo call'd becauſe the *middle Term* is not connected with the *whole Subject*, or the *whole Predicate* in two *diſtinct Propoſitions*, but is intermix'd in a confuſed Manner, and compared with them by *Parts*. As

The Devil is a wicked Spirit.
Some *Indians* worſhip the Devil.
Therefore ſome *Indians* worſhip a wicked Spirit.

HERE the Predicate of the Concluſion is—— *worſhip a wicked Spirit*; Part of which is join'd with the middle Term *Devil* in the *Major*, and the other Part in the *Minor*. This may be reduced to a *ſimple Syllogiſm* of the *firſt Figure*, in the *Mood* Darii, thus:

Da- The Devil is a wicked Spirit.
ri- What ſome *Indians* worſhip is the Devil.
i. *Ergo*, What ſome *Indians* worſhip is a wicked Spirit.

Though the Concluſiveneſs of the Argument in its *complex State* was obvious enough without this *Reduction*.

Four Sorts of Conjunctive Syllogiſms. *Conjunctive Syllogiſms* are thoſe wherein the *Major Propoſition* has diſtinct Parts connected together by ſome *Conjunction* or Particles of Speech; the Principal of which are four, *viz.* (1.) A *Hypothetical Syllogiſm*, when the *Major* or *Minor*, or both, are conditional Propoſitions; as,

Hypothetical. If there be a God, the World is govern'd by Providence;
But there is a God; *Ergo*,
The World is govern'd by Providence.

Diſjunctive. (2.) A *Diſjunctive Syllogiſm* is when the *Major Propoſition* is *Diſjunctive*; as

The Planets are either inhabited or uſeleſs.
But they (as the noble Works of God) are not uſeleſs.
Ergo, The Planets are inhabited.

(3.) A

(3.) A *Relative Syllogiſm* requires the *Major Propoſition* to be *relative*; as *Relative.*

Where the Treaſure is, there will the Heart be;
But a Miſer's Treaſure is in his Bags:
Ergo, His Heart is there too.
Or, A Saint's Treaſure is in Heaven;
Ergo, His Heart is in Heaven alſo.

(4.) A *Connective* or *Copulative Syllogiſm* is that which hath the Parts of the *Major* conjoin'd with *Copulatives*; as, *Connective or Copulative.*

No Man can ſerve *God* and *Mammon*;
The Covetous Man ſerves *Mammon*;
Ergo, He cannot ſerve *God*.
Or, The true Chriſtian ſerves God;
Ergo, He cannot ſerve *Mammon*.

THE Force of Argument in this kind of *Syllogiſms* depends on the Truth of the *Major Propoſition*, which therefore you ought to be well aſſur'd of.

Compound Syllogiſms come next in Order to be conſidered; theſe are made up of two or more *ſingle ones*, and may be reſolved into them. Of this Sort are theſe *four*, viz. *Of Compound Syllogiſms.*

(1.) *Epichirema*; which ſhews the Reaſon or Proof of the *Major* or *Minor*, as it proceeds to the *Concluſion*; as, *Epichirema, what.*

Sickneſs may be good for us; *for it ſhews us our Frailty, the Emptineſs of worldly Enjoyments, and makes us think of Dying*, &c.
But we are uneaſy under Sickneſs; *which we manifeſt by Impatience, Complaints, Groanings*, &c.
Ergo, We are ſometimes uneaſy under that which is good for us.

(2.) *Dilemma*; this is a ſort of Argument wherein the whole is divided into all its Parts or Members, and then infers ſomething concerning each Part, which is finally inferr'd of the whole Queſtion. Thus, *Dilemma, what.*

In

In Heaven we ſhall either have or not have Deſires; if we have no Deſires, then we have *full Satisfaction*; if we have Deſires, they ſhall be ſatisfied as faſt as they ariſe:

Ergo, In Heaven we ſhall be compleatly ſatisfied or happy.

Proſyllogiſm, what.

(3.) A *Proſyllogiſm*; this is when two or more *Syllogiſms* are ſo connected together, that the *Concluſion* of the *former* is the *Major* or *Minor* of the following one. As thus,

The Acts of the Soul in Man are *Thought*, *Will*, *Memory*, *Deſign*, *Reaſon*, *Underſtanding*, &c.

But all theſe Actions are diſcernible in Brutes.

Therefore the Agent or Soul is of the *ſame Nature* in Men and Brutes.

But, ſince the *Soul* of *Men* and *Brutes* are of like Nature; and 'tis granted the *Soul* of *Brutes* die with the Body: Therefore alſo does the *human Soul* die with the Body.

Sorites, what.

(4.) *Sorites*; this is when ſeveral *middle Terms* are choſen to connect one another *ſucceſſively* in ſeveral *Propoſitions*, till the laſt *Propoſition* connects its *Predicate* with the firſt Subject. Thus St. *Paul* ſaith,

Whom he foreknew thoſe he predeſtinated;

Whom he predeſtinated he alſo called;

Whom he called he juſtified;

Whom he juſtified he glorified;

Ergo, Whom he foreknew he glorified.

Of Defective Syllogiſms.

To theſe *Compound Syllogiſms*, which are alſo *Redundant* ones, may ſucceed the *Defective Syllogiſms*, or ſuch wherein the *Major* or *Minor Propoſition* is *wanting* or not *expreſs'd*. Of this Kind are the following.

An Enthymem, what.

(1.) An *Enthymem*, which hath one of the *Premiſes ſuppreſs'd* or *underſtood*. Thus;

Religion is known by good Morals.

Ergo, A Knave is not a religious Man.

Again, The fixed Stars ſhine with their own native Light;

Ergo, The fixed Stars are ſo many Suns.

(2.) *Induction*;

(2.) *Induction*; this from the *Species* infers the *Genus*, or from the *Parts* concludes of the *Whole*. As thus, *Induction, what.*

Socinianism cannot be proved from the *Goſpels*, nor from the *Acts* of the *Apoſtles*, nor from the *Epiſtles*, nor the Book of *Revelation*:
Ergo, It cannot be proved out of the *New Teſtament*.

(3.) *Example*; this is ſo uſual a *Topic* as needs no *Definition*; as, *Example, what.*

Aſtronomy hath been ſtudied by *Kings*;
Ergo, None are too *great* to ſtudy *Aſtronomy*.
Again; *Chriſt himſelf* was baptized:
Ergo, His *Diſciples* ſhould not be aſhamed of it.

THESE are the various Kinds of *Arguments* made uſe of in juſt Reaſoning; which if they be form'd according to the *proper Rules of Ratiocination*, they are ſaid to be *true Syllogiſms*; if they diſagree therewith, they are called *Paralogiſms*, or *wrong Reaſoning*. But when a *falſe Argument* puts on the *Face* and *Appearance* of a *true one*, then it is properly call'd a *Sophiſm* or *Fallacy*; and he who *contrives it*, a *Sophiſt* or *Sophiſter*; and ſuch an *Art* of *circumventing* and *deceiving* by *falſe* and *deceitful Arguments* is call'd *Sophiſtry*. So a *Sophiſter* can frame an *Argument* to prove that Heaven is not worth a *Penny*; thus, *Paralogiſm and Sophiſm, what.* *Sophiſt or Sophiſter, and Sophiſtry, what.*

Nothing is better than Heaven;
But a *Penny* is better than nothing;
Ergo, A *Penny* is better than Heaven.

THIS *Sophiſm* is founded in *Equivocation*; for the Word or *middle Term*, *Nothing*, is uſed in a *poſitive Senſe* in the *Major*, but in the *Minor* it is uſed in a quite oppoſite or *negative Senſe*. Therefore in all *Ratiocination* the Words ought to be explain'd very clearly, and the *Premiſes* well *proved* and *eſtabliſhed*, before the *Concluſion* can be admitted; and the *Argument* be free from the Imputation of *Deficiency* or *Sophiſtry*; and he who uſes it, from that of a *weak Perſon* or a *Deceiver*. Thus much ſhall here ſuffice *A Caution concerning Sophiſms.*

for

for *Syllogiſm* and *Argumentation*. We now proceed to the laſt *great Part of Logic*, viz.

Of the fourth and laſt Part of Logic, call'd Diſpoſition, or Art of Method.

DISPOSITION, or the Art of *Method*. *Method*, in a *dialectical* or *logical Senſe*, *is the Diſpoſition of a variety of Thoughts on any Subject, in ſuch an Order as is beſt ſuited to a clear and juſt Method of Reaſoning, and is moſt proper to convince the Mind of Truth and Error, and thereby to gain Belief and Aſſent thereto.*

It is twofold, Natural, and Arbitrary.

It is diſtributed into two *general Kinds*, viz. (1.) *Natural*, and (2.) *Arbitrary*. *Arbitrary Method* leaves the Order of *Nature*, and accommodates itſelf to particular Views and indifferent Purpoſes; and is moſtly uſed by *Hiſtorians*, *Orators* and *Poets*.

Natural Method, what.

Natural Method is that which obſerves the Order of *Nature*, and proceeds in ſuch a manner as that the *Knowledge* of the Things which *follow*, depends in a great meaſure on the Things which go before; and this is twofold, *viz. Synthetic* and *Analytic*; and abſolutely, *Syntheſis and Analyſis*.

Synthetic, or that of Compoſition.

Synthetic Method is that of *Compoſition*; which begins with the *Parts*, and proceeds to the Knowledge of the *Whole*; or with the *Individuals* or *Species*, and goes on to the *Species* or *Genus*. It firſt teaches the Nature of the moſt *ſimple Principles*, and proceeds on *general Truths* till it arrive by Degrees to a Notion of that which is *drawn from* or *compounded of* them. This *Method* is generally uſed in teaching the *Arts* and *Sciences*. For Inſtance, *Geometricians* begin with *Definitions*, *Poſtulates* and *Axioms*; then proceed to the *Contemplation* of *Points*, *Lines*, and *Angles*; from hence to the various *Properties* of *ſuperficial Figures*, as *Triangles*, *Squares*, *Parallelograms*, and *Circles*, &c. which are compounded of the *former*: From hence they aſcend to the more *complex Doctrine* of *Solids*, and ſhew their ſeveral *Natures*, *Affections*, *Relations* and *Properties*, ariſing from their *Compoſition* of the foregoing *Superficies*. And thus they exhibit a *compleat Syſtem* of that Knowledge which is call'd *Geometry*; but in a *Method Synthetical*, and by various *Gradations*.

Exemplified in Geometry.

Analytic, or that of Reſolution.

Analytic Method is that of *Reſolution*; this conſiders the *whole Compound* at firſt in a general Manner, and then leads us into a more perfect Knowledge of it, by *reſolving*

reſolving it into its *firſt Principles* or *component Parts*, whether *Species* or *Individuals*, and deſcribes the *Natures* and *Properties* of each of them ſeparately; and thus you obtain the Knowledge of the Whole compleatly. This Method has place in teaching the *Philological Sciences*, as *Grammar*, *Rhetoric*, *Logic*, *Metaphyſics*, *Poetry*, *Philoſophy*, &c. as alſo in *Anatomy*, *Algebra*, &c. And indeed in many Caſes both the *Synthetic* and *Analytic* are conjoin'd, the better to *find out Truth*, and to *communicate it*. *Where uſed.*

THE Rules of good Method, whether *Analytic* or *Synthetic*, are compriſed under the following Heads. (1.) It muſt be *ſafe*, your Propoſitions *firm* and *well grounded* in every Reſpect, that ſo they may be ſecure from Error. (2.) It ſhould be *plain* and *eaſy*, that ſo it may exhibit a *clear* and *comprehenſive View* of the whole *Scheme* and *Deſign*. (3.) It ſhould be *diſtinct*, and *free* from all perplexing Mixture of Things which ought to be kept ſeparate, that ſo *Confuſion* may be evited. (4.) It ſhould be *plenary* or *full*, ſo that nothing may be *wanting* that is *proper* and *neceſſary*. (5.) It ſhould be *ſhort*, or without *Superfluity*, and the whole conducted with a well-concerted *Brevity*. (6.) It ſhould be *proper* to the *Subject* in hand, to the *preſent Deſign*, as well as to *the Age and Place* wherein you live. (7.) The Parts of the Diſcourſe ſhould be well *connected*, *dependent*, and *cohering* by proper and graceful Tranſitions; by which means the Reader is ſo inſenſibly entertain'd, and led on, that he knows not how to leave off till he hath arrived at the End. *The Rules of good Method.*

Of METAPHYSICS, *or* ONTOLOGY; *or the* SCIENCE *of* BEING *abſtractedly conſider'd.*

ONTOLOGY *defined.*

ONTOLOGY is a *Science* which treats of *Being* or *Entity*, and its *Properties*; and that *abſtractedly* in its own *ſimple Nature*, and not as it relates to *Bodies* and *Forms*, which is the Buſineſs of *Phyſics* or *Natural Philoſophy*; or to *Quantity*, which is of a *Mathematical Conſideration*; but abſolutely as it relates to the *Exiſtence* of all Things indifferently. This Doctrine was formerly call'd *Metaphyſics*.

Being, Entity, and Exiſtence, what.

Being, *Entity*, and *Exiſtence*, are all *ſynonymous* Words, and only ſignify the *State* of that which *is* or doth *exiſt*, purely as *exiſting*; inſomuch, that all particular *Ideas*, of *Body*, *Form* or *Quality*, are excluded, ſince Being is the *abſolute original State*, and *primary Property* neceſſary to all of them.

The ſame in a reſtrain'd Senſe.

BUT the ſame Words *Being*, *Entity*, *Exiſtence*, when uſed in a more *reſtrain'd Senſe*, do alſo ſignify *Things themſelves* which do exiſt; but then it is *ſimply* and *purely* with regard to them *as ſuch*, i. e. as *Things exiſting* only, without any Reference to *Modes* or *Qualities* inherent in them. As when we ſay, The Planets may be inhabited by ſome Sort of *Beings*: The *Fairies* are not real but imaginary *Beings*, &c. Tho' the Word *Beings* is more commonly uſed than *Entities*, and *Exiſtence* never in the *Plural*, and ſeldom in the *Singular* to expreſs the *Thing exiſting*.

The Subject of Ontology.

IN this Senſe, *Being* or *Entity* is the *Object* of this *Science*, which occaſion'd it to be call'd *Ontology* by the *Greeks*, that Word with them importing the *Doctrine of Beings abſtractedly conſider'd*; and ſince the

Notion

Notion of *Being* or *Entity* in the *Abſtract* is the very *Soul* of this Science, it will be neceſſary to explain, in the next Place, what *Abſtraction* is, and what is meant by Being *in the Abſtract*.

ABSTRACTION, then, is that Faculty of the Mind, whereby we conſider, and contemplate the various *Relations*, *Properties*, and *Qualities* of Bodies, *alone*, or as they are *in themſelves*, and not as they are in the Bodies. By this Act of the Mind, we as it were ſeparate and withdraw it from the Body, and all other *Modes* and *Relations*, and view it *in itſelf*; and thus (to ſpeak with the Schools) we deduce a Thing from a *ſingular* to an *univerſal State*. *Abſtraction* is of two Kinds, *viz.* *Preciſive* and *Negative*. *Abſtraction what.* *Is of two Kinds.*

Preciſive Abſtraction is when we conſider thoſe Things apart, which cannot really exiſt apart; as when we conſider a *Mode* or *Property* apart from the *Subject*, or one *eſſential Mode* without *another*. Thus I can conſider that which we call *white* in a *Wall*, but in my Mind I can *abſtract* this from its *ſingular* State, in its *Subject* the *Wall*, and conſider it in a more *univerſal* State, as a *Quality* which I call *Whiteneſs*; and find it may be attributed to a great Variety of Subjects, as *Milk*, *Snow*, *Chalk*, *Eggs*, &c. Thus the *round Shape* of a Globe, I abſtractedly conſider as a *Quality*, and find it, as ſuch, in ſeveral other Subjects, and of different Kinds; as the *Roundneſs* of a Circle, the *Roundneſs* of a Cylinder, *&c.* Alſo *Whiteneſs* and *Roundneſs* may be conſider'd apart, not only from the Subjects the *Wall* and the *Globe*, but diſtinctly from all other *Modes* and *Relations* belonging to them, as *Height*, *Solidity*, *Weight*, &c. *Of Preciſive Abſtraction.*

Negative Abſtraction is when we conſider one Thing *ſeparate* from another, which may alſo *exiſt* without it. As when we conceive of a *Subject* without regarding its *accidental Modes* and *Relations*; or when we conceive of one Accident without thinking of another. As when I conceive the *Idea* of a *Needle*, without the *Idea* of its *Sharpneſs*, it is a *Negative Abſtraction*; and it is the ſame when I think of a *Book*, without the *Idea* of Reading or Writing; or when I think of reading without conſidering the Manner, whether *Vocally* or *Mentally*. *Of Negative Abſtraction.*

When Things are said to be in the Abstract or Concrete.

THINGS thus conceived of, or represented apart from the *Subject*, in the Manner as above described, are said to be *in the Abstract*; but when they are particularly consider'd *with* or *inherent* in their *Subjects*, they are then said to be consider'd in the *Concrete* or *Subject*. Or thus, we say, *white*, *round*, *tall*, *witty*, *weighty*, *lively*, *dead*, *mortal*, &c. *in the Concrete*; but, *in the Abstract*, we say, *Whiteness*, *Roundness*, *Tallness*, *Wittiness*, *Weightiness*, *Liveliness*, *Deadness*, *Mortality*, &c.

HAVING thus distinguished or specified the Manner of *Conception* of *Being* or *Existence* in our Minds; I shall next enumerate the *Kinds of Being*, and then the *peculiar Properties* belonging thereto, and which distinguish them from one another.

Of the Kinds of Being, substantial and modal.

I think all *Being* in the Universe may be distributed into two *General Kinds*, viz. (1.) *Material* or *Substantial*, that is, the Being of *Substance* or *Matter*. (2.) *Modal* or *Formal*, which respects the Being of *Modes*, *Forms*, *Qualities*, and *Relations*, either inherent in, or accidental to *Substance* in general, or its Parts in particular. Besides *these two Sorts of Being* there are no other, that I know of.

Substantial Existence is either Spiritual or Corporeal.

BUT then each of these contain their *Species*, or lesser *Kinds*; and these again, their numerous *Subdivisions*, and *Individuals*. Thus with regard to *Substance*, *material Being* or *Existence* may be distinguish'd into (1.) *Incorporeal* or *Spiritual*, or the *Being* or *Existence* of such Things as we do not, or cannot properly call *Body*, but *Spirit*. (2.) *Corporeal*, or the *Existence* of *Bodies*. I have here designedly avoided the old, tho' commonly receiv'd Distinction of real *Beings* into *Material* and *Immaterial*, which I take to be *absurd* and *inartificial*; because all real Being must be that of *Realities*, and not *Non-entities*; and all *Realities* being *positive* Things, must consist of *something*, and that Something is in itself *homogeneous*, and universally the same in the *Essence* of all *real Existences*, is the *Basis* of all Essences, and the same we call *Substance* or *Matter*; and consequently all *positive Existence* is that of *Matter*, and therefore *material* wholly, and no Part *immaterial*.

No Beings properly immaterial.

IN

In order to have a true Notion of *ſpiritual* and *corporeal Exiſtence*, we muſt firſt have a clear and diſtinct *Idea*, or true *Definition*, of what Spirit and Body are, and how they differ.

SPIRIT, Mr. *Watts* defines to be *Power of Thinking*; but I can by no Means think this a *juſt Definition*: For, if by *Power*, Mr. *Watts* means only the mere *cogitating Faculty*, as I think it is plain he does, then it is ſo far from including any *Notion* or *Idea* of *Subſtance* (which yet he affirms *Spirit* to be) that it is only a mere *Mode* or *Property* of ſome particular *Subſtances*: For, can any one who believes *Subſtance* to be *Matter* extended, think that this *Idea* agrees in any wiſe with the *Idea* of *Power* or *Faculty* of doing any thing in general? If not, it can't be thought to agree with the *Idea* of any particular Sort of *Power*, tho' the moſt *noble*, or that of *Thinking*. The *Power of Thinking* is ſelf-evidently nothing but a *Mode of Being*, and cannot ſubſiſt of itſelf, abſtract from a *Subject* or *Subſtance*. *Spirit defined by Mr. Watts, but not juſtly.*

I ſhall therefore define a *Spirit* to be a *Subſtance, of a moſt ſubtle and (to us) inſenſible Texture and Form, poſſeſſed of all the Faculties and Powers of Mind and Intellect in various Degrees of Perfection.* *A true Definition of a Spirit.*

BODY I alſo thus define; *It is a groſs Subſtance, obvious and perceptible by ſome or all the animal Senſes, indifferent to the Power of Thinking, and endow'd with great Variety of Forms and Qualities in the ſeveral Species thereof.* *Body defined.*

The principal Differences therefore of *Spirit* and *Body* conſiſt in the following Particulars. (1.) The Subſtance of Spirits is incomprehenſibly *fine* and *ſubtle*, ſo as to pervade the Pores of the moſt ſolid Maſs of Matter; but that of Bodies is of a *groſs Texture*, and renders them *Obſtacles* to each other. (2.) The *Form and Subſtance of Spirits* are naturally *inſenſible* to us; that is, we can neither *See*, *Hear*, nor *Feel* them; yet are they capable of preſenting themſelves on ſome Occaſions to thoſe Senſes. But all *Bodies* are ſenſible by us in part, and moſt are wholly ſo. (3.) All *Spirits* are naturally *cogitative*, or endow'd with the *Power of Thinking*; whereas this Faculty is not *eſſential* to Bodies; ſome being poſſeſſed therewith, and others not. (4.) *Spirits* are not the Sub- *The Difference between Body and Spirit.*

jects of *human Knowledge or Converſe*, but *Bodies* naturally are; of theſe we know many things; of thoſe nothing, unleſs by *Revelation*, or other ſupernatural Means.

The Kinds of ſpiritual Beings.

THE principal Things relating to theſe *incorporeal Eſſences*, or *Spirits*, taught us by *Revelation*, are the following. (1.) That *God* himſelf is a *Spirit*, and *infinitely the moſt perfect* of all others; whoſe *high Dignity*, and ſingular *Majeſty*, we call the *Godhead*, or *Deity*.

God.

Son of God.

(2.) That next to *God*, there is another Being, originally a *pure Spiritual Eſſence*, which in time aſſum'd thereto a *Corporeal Subſtance* or *Body*, of a moſt excellent and ſuperlative Nature, who therefore is call'd the *Son of God*, or *next* to him in *Dignity*.

Holy Ghoſt.

(3.) We are inform'd alſo, that in the third Degree of the *Scale* of *ſpiritual Eſſences*, is one of a peculiar Nature; having a near Relation to the other two, and from his Office has the Name of *Holy Ghoſt*, as being the *Sanctifier* of Men.

Angels.

(4.) At an immenſe Remove from theſe, we find a fourth Claſs of *incorporeal Subſtances*, call'd *Angels* by us, but by the Heathens *Dæmons*, *Genii*, &c. concerning which we read of various Denominations, Numbers, and Subordinations; which latter is call'd the *Hierarchy* of *Angels*, and is uſually reckon'd threefold, *viz.*

Their threefold Hierarchy.

The *firſt Hierarchy* contains the three moſt honorary Orders, call'd *Seraphims*, *Cherubims*, and *Thrones*. The *ſecond Hierarchy* conſiſts of three intermediate Orders, call'd *Dominions*, *Virtues*, and *Powers*. The *third Hierarchy* contains the three loweſt Orders, call'd *Principalities*, *Arch-angels*, and *Angels*.

Of good and bad Angels.

CONCERNING *Angels* we have alſo a farther Account; that they were originally all *pure*, *perfect*, *holy*, and *divine Spirits*, and miniſter'd the *ſovereign Power* and *high Commands* of the *Deity* to inferior created Worlds; but that in Time ſome proved treaſonable and diſobedient to the Majeſty of Heaven, who therefore expell'd, rejected, and caſt them down from the celeſtial Abodes, and bliſsful State they before enjoy'd; whereupon they became enraged againſt God, and are ſaid ever ſince to go up and down ſpreading Evils over the Moral World, and ſeeking the Deſtruction of Mankind from a Principle of Revenge and Hatred to God. Theſe are therefore by us call'd

evil

evil Spirits, *wicked Angels*, and in common, *Devils*. The good Angels, who continued in their State of native Rectitude and loyal Obedience, are call'd *good Angels*, and *Sons of God*; whoſe Buſineſs and Office it is, *to miniſter for thoſe who are Heirs of Salvation*.

Apparition of Angels.

ONE thing more Revelation teaches us concerning *Angels*, and that is, that they have a Power of aſſuming any viſible Form or Shape, and becoming the Objects of our Senſes; we are inform'd of ſeveral Inſtances of this Nature, which is call'd the *Apparition of Angels*. In this Caſe, they have often appear'd in *human Shape*, and exerted *human Actions*; as *Talking*, *Eating*, *Drinking*, *Sleeping*, *Waſhing*, &c. This I take to be confirm'd by the *Apparition of Spirits*, which many times appear in the Perſons of *deceaſed* Men and Women; and are therefore ſaid to be their *Apparition* or *Spirit*. For ſince Angels are converſant in all inhabited Worlds, and are doubtleſs well acquainted with the State and Exigencies of People, and have the Power of aſſuming a viſible or ſenſible Form, why ſhould it not be thought moſt reaſonable for them to be permitted, on ſome Occaſions, to perſonate particular Perſons after their Deceaſe? I ſee nothing abſurd in this Suppoſition; as I can ſee nothing rational in that which makes theſe *Apparitions* to be the *Souls* of the departed, whom they repreſent.

The ſame as the Apparition of Spirits.

The Doctrine of the Soul's Exiſtence not rational.

FOR notwithſtanding the Antiquity and Univerſality of the Doctrine of the *Soul's Exiſtence*, and the many Efforts of the moſt learned Pens to ſupport it, I have never yet been able to ſee any thing of Reaſon or Truth therein ſufficient to render it *credible*, or indeed *intelligible*. The grand Principle on which this Opinion is receiv'd, is, That mere Matter cannot think; 'tis granted it cannot; and 'tis alſo as evident, *that mere Matter cannot move of itſelf*, yet it does not follow that it is uncapable of *Motion*, of which we know it is eaſily ſuſceptible. Why then ſhould it be thought *uncapable of the Power of Thinking* from the Divine Being? I have not ſeen it proved a *Contradiction* by its greateſt Oppugners; yea, ſo far is it from that, we have frequent Examples of *mere Matter*'s being immediately endow'd with the *Power of Life and Thought* by the divine *Omnipotence*; witneſs *Moſes*'s Rod. Was it not *mere Matter* one Moment, and a

Matter may be endowed with the Power of Thinking.

Exod. iv. 3.

Exod. viii. 16. *cogitative Animal* the next? Is not *Duſt*, *mere Matter*? And did not God immediately convert it to *Animals*, by endowing it with Life and *Thought*? Again, did not the ſhort-lived Serpent immediately return to its priſtine lignous State? Would it not be wretched *Futility*, and a *trifling Evaſion*, to ſay, God inſtantly inſpired the *Rod* and the *Duſt* with *Souls*, and then deprived them of them again? It is evident, therefore, that mere Matter's being capable (by the *Almighty Power*) of the *Faculty of Thinking*, is no longer an *Opinion*, but *real Fact*; and conſequently the Bodies of Men and other Animals are render'd capable of *Life* and *Thought*, on Principles more rational and intelligible, than that of the *Exiſtence of Souls*; which is a mere *Ens Rationis*, or *Phœnix of Ontologiſts*, as I think would be no hard Matter to make appear, were this a proper Place for ſuch Diſquiſitions.

A Diſtribution of Corporeal Beings.

THE ſeveral Kinds of *incorporeal Beings* or *ſpiritual Subſtances* being enumerated, I ſhall proceed to mention the principal of the other Claſs, *viz.* of *Corporeal Subſtances*, or *Bodies*. The moſt proper Diſtribution of theſe, is into the three following Genders. (1.) *Animals*, which are endued with the Properties of *Life*, *Senſe*, and *Thought*. (2.) *Vegetables*, which are ſuch Bodies as have a Power of *growing* and *increaſing* by a ſpecial *organical Diſpoſition of Parts*, in various determinate or *generical* Forms and Sizes; as *Herbs* and *Trees*. (3.) Bodies abſolutely *inanimate*, or which have neither an *animal* nor *vegetative Life*; as *Earth*, *Water*, &c. To each of theſe *Kinds* belong divers *Species*, and thoſe *Species* have their numerous *Individuals*; which will be the Subject of *Phyſiology* to contemplate, and ſhall therefore omit them here.

Animals. *Vegetables.* *Inanimate Matter.*

The ſeveral Modes and Affections of Being enumerated.

Subſtantial Exiſtences or *Eſſences* being thus conſider'd, I ſhould next have treated of the *modal Kinds of Being*, as *Properties*, *Forms*, *Qualities*, *Adjuncts*, *Relations*, *Ideas*, *intellectual Notions*, &c. but moſt of theſe having been already treated of in *Logic*, as being the proper Subject of that Art, I ſhall refer the Reader thither for an orderly View of them; and here proceed to the *Speculations* of that Kind which remain, and are more directly of a *Metaphyſical Nature*. And they are as follow. (1.) *Nature* and *Eſſence*,

ſence, and *Nibility*. (2.) *Matter*. (3.) *Mind*. (4.) *Power* and *Action*. (5.) *Neceſſity*, *Contingency*, and *Liberty*. (6.) *Poſſibility*, *Impoſſibility*. (7.) *Identity* and *Diverſity*. (8.) *Corruptibility* and *Incorruptibility*. (9.) *Dependency* and *Independency*. (10.) *Simplicity* and *Compoſition*. (11.) *Communicability* and *Incommunicability*. (12.) *Creation*, and Things created. (13.) *Finite* and *Infinite*. (14.) *Principles*, *Cauſes*, and *Effects*. (15.) *Natural*, *Moral*, and *Artificial*. (16.) *Permanency* and *Succeſſion*. (17.) *Abſolute* and *Relative*. (18.) *Subject* and *Adjunct*. (19.) *Number*. (20.) *Order*. (21.) *Time*. (22.) *Ubiety* or *Place*. (23.) *Unity*, *Union*, and *Plurality*. (24.) *Verity* or *Truth*. (25.) *Goodneſs* and *Perfection*. (26.) *Signs* and *Repreſentations* of *Things*. Theſe Particulars defined and explained, will nearly exhauſt the remaining Part of *Ontology*. To begin with the firſt.

Of Nature and Eſſence.

By *Nature* we are to underſtand that peculiar *Modification* of Matter united with ſuch *ſpecific Properties* and *Qualities*, as make that thing to be what it is, and different from all others. Thus the *Nature* of Fire conſiſts in the extreme *Subtilty*, *Agitation*, *Lucidity*, and *painful Action* of its Particles, on ſenſible Matter. The *Eſſence* of a Book is many Leaves bound together; and the *Nature* of an *Animal* is Matter endow'd with *Life* and *Senſe*.

The Nature of Things, what.

By the *Nature of Things*, is often meant, in a general Senſe, the eternal, eſtabliſh'd and unalterable Reaſon and Relation of Things; as that of *three* to *five*, which muſt ever make *eight*, according to the *Nature of Things*. Sometimes this Phraſe alſo ſignifies the *conſtant Order and Courſe of Action* in *ſecondary Cauſes*; as the Succeſſion of *Day* and *Night*, the Seaſons of the Year, the *annual Production* and *Blooming* of Vegetables, *&c.* Any Irregularities in this reſpect are ſaid to be *beſides Nature*, as *Monſters*; or *above Nature*, as *Miracles*; or *contrary to Nature*, as *Sodomy* or *Buggery*.

Space and Shadow mere Nibilities.

As *Nature* or *Eſſence* always implies the *poſitive Exiſtence* of *ſubſtantial Beings*, ſo where there is no *real Eſſence*, there can be no *real Exiſtence*; and conſequently *Darkneſs* and *Shadow*, which are only the Abſence of *Light*; and *Space*, which is only the Abſence of Body; are no *real Eſſences*, but mere *Nihilities*

lities or *Non-entities*; at leaſt, have only a *modal Exiſtence* in the *Ideas* of our Minds.

Of Matter or Subſtance.

Matter or *Subſtance* is that myſterious unknown Somewhat whereof all Bodies conſiſt, and ſeems to be uniform, homogeneous, or of the ſame Nature in all Bodies, diverſified with great Variety of *Forms* and *Qualities*, hereafter to be deſcribed. The Matter of a Body is either *proxime* or *remote*: The proxime Matter of which a Book is made is *Paper*, *Ink*, and *Covers*, &c. But the *remote Matter* is that whereof the *Paper*, *Ink*, and *Covers* are made.

Of the Mind, and wherein it conſiſts.

Mind is that *primary and noble Power or Faculty* communicated by the Divine Being to ſome Bodies, poſſeſs'd of animal Life and Senſe; whereby they are render'd capable of *Thinking*, *Underſtanding*, and *Ratiocination*. The *Breath of Life* being inſpired into a Body, it immediately becomes a *living Soul*; that is, a *cogitative* and *ſenſitive* Body, an *Animal*. The *Senſes* firſt of all ſupply the *Mind* with *Ideas*, the proper Subject of its Actions, which are many; as *Perception* or *Thought*, *Judgment*, *Reaſon*, *Imagination*, *Reflection*, and *Volition*, or *Will* and *Choice*, *Compariſon*, &c. By reaſon of the *Mind*, animal Bodies are affected with various *Paſſions*, as *Love*, *Hatred*, *Hope*, *Fear*, *Admiration*, *Diſdain*, *Joy*, *Sorrow*, and many others. All theſe *mental Actions*, and *Paſſions*, with their *ſubject Matter*, do together conſtitute but *one individual Being* or *Eſſence*, of ſeveral Kinds, to be hereafter enumerated in their proper Place.

Of Power, and Action.

Power is that Affection of Being which conſiſts in a Capacity or Ability therein *to be*, *to do*, or *to ſuffer*. *Action* is the Exerciſe of that Power to *be*, *do*, or *ſuffer*. Hence *actual Being*, *Doing*, or *Suffering*, is often uſed in Contradiſtinction to *potential Being*, &c. the *former* denoting that which is real and preſent; the *latter*, that which doth not now exiſt, but hath a mere Poſſibility of doing ſo. As a Child that will or may be born hereafter, hath not now any *actual*, but only a *potential Being*. There are abundance of Diſtinctions of *Power*, as *Corporeal*, *Vegetative*, *Animal*, *Natural*, *Acquired*, &c. as alſo of *Action*, as into *Immanent*, *Tranſient*, *Natural*, *Supernatural*, *Accidental*,

Accidental, *Free*, *Neceſſary*, *Moral*, &c. which are all eaſily underſtood by their bare Denominations.

Neceſſity is of two Kinds; (1.) *Neceſſity* of *Exiſtence*. (2.) *Neceſſity* of *Action*. *Neceſſity* of *Exiſtence* is a very *obſcure Idea*, and ſignifies a *Thing is becauſe it muſt be*, or becauſe its *Not-being* would imply a *Contradiction* to its *Nature*. Thus *God* is ſaid to exiſt *neceſſarily*, or without any *pre-exiſtent Cauſe*. *Neceſſity* in this Caſe is oppoſed to *Contingency*, which is only the *Being* or *Exiſtence* of Things, which *might not have been*, and *may ceaſe to be*. *Neceſſary Exiſtence* is without a Cauſe, and *independent*; *contingent Exiſtence* is the Effect of a Cauſe, and *dependent* thereon. Again, *Neceſſity of Action* is that which is founded in the Nature of Things, and muſt produce the Cauſe of that *Action*. This is ſometimes call'd *Fate* or the *Fatality* of *Actions*; and is oppoſed to *Liberty* or *Freedom*, which is indeed applied to the *Will*, and conſiſts in a *ſpontaneous* or *voluntary chuſing* or *refuſing* of what it thinks fit. There are the following Diſtinctions of Neceſſity, *viz.* (1.) *Natural*; by this *Water* congeals with *Cold*, and *Ice* melts with *Heat*. (2.) *Logical*; thus a *Concluſion* neceſſarily flows from the Premiſes of a *Syllogiſm*. (3.) *Moral*; thus 'tis morally neceſſary that intelligent Beings ſhould worſhip God; that *Virtue* ſhould be *free*, to deſerve Reward, &c.

Neceſſity of two Kinds, Exiſtence and Action.

Neceſſity of Exiſtence.

Contingency.

Neceſſity of Action.

Fate.

Liberty.

Natural, Logical and Moral Neceſſity.

Poſſibility is that Affection of Being, which conſiſts in having all the *Ideas* which are ſuppoſed to make up its *Nature*, ſuch as may be *actually united*, and have no *Inconſiſtency*; as a *Mountain of Gold*, or a *River of Oil*. But where *Ideas* are *inconſiſtent* and *incompatible* with each other, and can't be *united*, there enſues *Impoſſibility*: As, *cold Fire*, or *ſilent Thunder*. *Impoſſibles* may be diſtinguiſh'd into four Sorts, *viz.* (1.) *Metaphyſically* or *Abſolutely ſo*, in the abſtract Reaſon and Nature of Things, as a *ſquare Circle*, or *circular Triangle*, a *thinking Statue*, a *ſcarlet Sound*, a *Buſhel of Souls*, &c. (2.) *Phyſically* or *Naturally*, i.e. according to the preſent *Laws of Nature*; as three Eclipſes in a Month; a Day in our Latitude 20 Hours long; a *perpetual Motion*, &c. (3.) *Morally*, i.e. improbable in the higheſt Degree, and which we can have no Reaſon to believe; as, that an *Atheiſt* can

Poſſibility and Impoſſibility.

Impoſſibles of four Kinds.

Metaphyſical.

Phyſical.

Moral.

can be *virtuous* or *happy*; that an *Hottentot* ſhould compoſe a Syſtem of *Ontology* or *Mathematics*; that a *Momus* or *Zoilus* ſhould forbear *Calumny*, and vilifying Men and Works of Merit. (4.) *Conditionally*, or which is render'd *impoſſible* by putting in ſome *Condition*; as a Tree's *bearing Fruit* on Suppoſition it has no *Bloom*, the building a *Caſtle* in the Air, *&c.*

Conditional.

Identity or the *Sameneſs* of Being, is that Affection which conſiſts in one and the ſame Number of Particles, of the ſame peculiar Qualities, which conſtitute the *Eſſence* or *Nature* of a Thing. And if the Eſſences of Things be not *numerically* the ſame, and have not a perfect Agreement of all their *Properties and Qualities*, they are ſaid to be *diverſe*, and their *Habitude* to each other is call'd *Diverſity*. *Identity* is *real*, or *modal*, as it particularly reſpects the *Eſſence* or *Modes* of Beings; though that which reſpects the *Qualities*, is properly call'd *Likeneſs* or *Similitude*; or when it relates to the *Shape* or *Figure*, it is call'd *Similarity*; if to the *Quantity*, it is call'd *Equality*. On the contrary, a *Diſagreement* in Subſtance or Eſſence is call'd *Diverſity*; in *Quality* 'tis *Diſſimilitude*; in *Quantity* 'tis call'd *Difference*. The pointing out the Difference between *two* Things, is call'd *Diſtinction*. *Diſparity* is a Difference of *Species* under the ſame *Genus*, as *Yellow*, *Green*, &c. *Man*, *Brute*, &c. are ſaid to be *Diſparates*. *Oppoſition* is a perfect or total *Diſagreement* of *Genus* and *Species* both; as *Sound* and *Silence*, *Light* and *Darkneſs*, *Day* and *Night*, &c. are call'd *Oppoſites*. *Contrariety* is the Relation of the *Extremes* with reſpect to a *Mean*, toward which they approach in Quality as in Diſtance, and wherein they ultimately unite; as *Heat* and *Cold*, *Virtue* and *Vice*, *Summer* and *Winter*, *Morning* and *Night*, are call'd *Contrarieties*. *Contradiction* conſiſts in ſuch a *Repugnancy* of the Nature of *Ideas*, as entirely deſtroys all Poſſibility of *Union* or *Conſiſtency* between them; as *Power* and *Impotency*, *ſomething* and *nothing*, *ſeeing* and *not ſeeing*, &c. are ſaid to be *Contradictories*, and can't exiſt together. As for the common Diviſion of *Identity* or *Sameneſs* into *Generical*, *Special*, *Numerical* or *Individual*, *Material* and *Formal*, the Words themſelves ſufficiently indicate what is meant thereby.

Of Identity, and Diverſity.

Is real or modal.

Similitude.

Similarity.

Equality.

Diverſity.

Diſſimilitude.

Difference.

Diſtinction.

Diſparity.

Oppoſition.

Contrariety.

Contradiction.

Corruptibility

Corruptibility is ſuch an Affection of Being, as renders it capable of ſuch a *Diſſolution of the Parts*, by ſome Cauſe or Agency foreign to its Nature, which deſtroys the proper *Nature*, *State*, and *Texture* thereof, and cauſes it to ceaſe to be *formally* the ſame Being as it was before. Thus the Bodies of Men, being dead, ſuffer *Corruption* by being converted into Duſt; thus *Wood* by Fire is turn'd into *Aſhes*, *Iron* into *Ruſt*, and *Copper* to *Verdigreaſe* by the Principle of *Corruption*. This is an *Attribute* of all *Corporeal Subſtances*; but ſpiritual Beings may, for ought we know, admit of no ſuch *Change* or *Diſſolution* of Parts, but always continue as well *formally* as *materially* the ſame; and may be therefore ſaid to be *incorruptible*; at leaſt, we muſt allow this Attribute of *Incorruptibility* to *God*, who poſſeſſes all Perfections. *Of Corruptibility and Incorruptibility.*

Dependency of *Exiſtence* is that Affection, whereby no Being can of itſelf have a Power *to be*, *to endure*, or *to act*, but muſt receive the ſame from ſome other thing, as its Cauſe productive of it. Thus all things *depend* primarily on God, and *ſecondarily* on one another. No *Animal* can produce itſelf, but depends on its Parent, as the pre-exiſtent efficient Cauſe. The Doctrine of *Equivocal Generation*, or *Spontaneous Production* of Things, *i. e.* fortuitouſly, and without a Cauſe in its own Kind, is utterly falſe, an idle Conceit of ignorant Philoſophers, and the bold Aſſertion of an impious Atheiſt. Conſequently, *Independency*, or *Being* without any pre-exiſtent Cauſe, can belong only to a *neceſſary* and *ſelf-exiſting Being*, i. e. to *God*. *Of Dependency and Independency.* *Equivocal Generation expleded.*

Simplicity and *Compoſition* are the next Affections of Being. *Simplicity* is defined to be the *indiviſible Unity* of Being, or where all the *Ideas* of its Nature are of *one* and the *ſame eſſential Nature* and Kind; as the Particles of *Water*, *Fire*, *Air*, &c. purely ſuch; and theſe conſtitute a moſt *pure* and *ſimple Body*, which we uſually call an *Element*. On the contrary, *Compoſition* is that Affection of Being, by which it conſiſts of *various Ideas of divers Natures*; and is ſaid to be *Eſſential* or *Accidental*. *Eſſential Compoſition* is that whereby ſeveral Beings are compounded into *one Eſſence*: As *Salt-water*, a *Loaf* of *Bread*, &c. *Accidental Compoſition* is that where *ſome Accident* is an *Of Simplicity and Compoſition.*

Ingredient in the Idea; as the Idea of the *ſhining Sun*, a *juſt Man*, &c. The Queſtion is whether there be any *abſolute Simplicity* in *Corporeal Beings*, unleſs in their *primary conſtituent Particles*; but of thoſe Affections I have already taken notice in *Logic*.

Of Communicability, and Incommunicability.

Communicability is that Affection, whereby Beings are capable of participating of each other's common Nature; as *Heat* is communicable to *Metals*, and other Bodies; thus one Man communicates Knowledge to another; and the Eyes have a *Communication* of *Animal Spirits* from the Brain. *Plants* and *Animals* all communicate of one common Nature in each. There are many dry ſcholaſtic Diſtinctions and Diviſions under this Head, to be met with in Authors, which thoſe who think it worth while may peruſe. I ſhall only juſt obſerve here, that *Incommunicability* can be attributed to ſcarcely any Thing but the *Infinity* of God's Perfections, and to mere Non-entity; for that which a Perſon has not, he can't communicate to another.

Of Creation.

Creation is that Affection of Being, by which it receives its firſt *Mode of Exiſtence*, or acquires that *Eſſence* and *Form* which conſtitute its *Nature*. Thus the World and all Things are ſaid to be created by God originally: The Earth was created of a *Chaos*, or *Maſs* of confuſed Matter; Man was created out of the Duſt of the Earth; *Fiſh* and *Fowl* out of the Water. This is a Power peculiar to God, ſince no Being can produce itſelf, but by the ordinary Method

Generation.

of *Generation*; which is only a natural Means for continuing, propagating, and multiplying Beings, already form'd and created, and which have a *real* and *formal* Exiſtence (tho' inviſibly ſmall) in the *Seed* of both *Plants* and *Animals*, as late Diſcoveries have

Queries.

ſufficiently made manifeſt. *Quere*, (1.) Whether the proper Senſe of the Word *Creation*, is the *making Something out of mere Nothing*; (2.) Whether that does not imply a moſt *notorious Contradiction*? (3.) Whether there is the leaſt Shadow of ſuch a Notion in the *Moſaic Account of the Creation*, Gen. i.? (4.) Whether *Annihilation*, or the reducing of a *Subſtance to mere Nothing*, be not equally abſurd, and plainly contrary to *Mathematical Demonſtration*? (5.) Whether

ther Matter, in its own Nature, be not neceſſarily *eternal* and *uncreate*?

Finite and *Infinite* are thoſe *Ideas* which relate to the *Limits* and *Bounds* of *Exiſtence*; and thoſe Beings whoſe Nature, Parts, Quantity, Qualities, Powers, Operations, and Durations, are *limited* or *circumſcribed* within certain Bounds and Terms, are call'd *finite Beings*: But thoſe are *infinite*, which are *unlimited*, or have no *Bounds*. All *Subſtances*, and moſt of their Qualities, are *finite*; ſome can't be properly call'd *finite* or *infinite*; as *Colour*, *Truth*, *Falſhood*, &c. Some Things are *infinite* with reſpect to their Duration, and therefore are call'd *Eviternal*, *Eternal*, or *Sempiternal*, as they are without *Beginning*, without *End*, or without *both*; as is the *Deity*, whoſe Exiſtence is abſolutely *Simultaneous* with regard to the Parts of Time. Some Things are *infinite* in Quantity, and then are ſaid to be *Immenſe*; as the *Mundane Space*: Yet this may be juſtly queſtion'd, for as *Space* is mere *Nihility*, and the *Limit* of *Exiſtence*; ſo *Exiſtence* may be ſaid to be the *Limit* of *Nihility*. Among the abſtracted Speculations of *Mathematicians*, we find various Kinds and Degrees of *Infinity*, both with regard to *Number* and *Magnitude*. The *Arithmetic* of *Infinites* is known to every *Tyro*; the *Analogy* or *Habitude* of *Infinites*, from *ſmall* to *great*, is known and determined as intelligibly by them, as the Ratio or Proportion of any *finite* Quantities is by People in common. There is no *Medium* between *Finite* and *Infinite*; for what we call *Indefinite*, is only that of which we know not the Limits containing it.

Of Finite and Infinite.

Eviternity, Eternity, Sempiternity.

Immenſity.

Mathematical Infinites.

Indefinite.

The *Principles* of Things are thoſe primary and original Springs and Sources from whence they receive their *Exiſtence*; as *Grapes*, *Apples*, and *Pears*, are the Principles of *Wine*, *Cyder*, and *Perry*. Thus *Minerals*, *Metals*, and *Herbs*, are the Principles of *Salts*, *Oils*, and many other Chymical and Galenical Medicines. Thus alſo the *Maxims*, *Axioms*, and *Rules* of Arts and Sciences, are the Principles of *Knowledge* and *Wiſdom*; and *Virtue*, *Intereſt*, &c. are ſaid to be the Principles of many *human Actions*. I can't think the Parts or Ingredients in the Compoſition of Bodies, are with any Propriety call'd *Principles*;

Of the Principles of Things.

ciples; they are the *Essentials* of Existence, and not the *Sources* thereof. A *Cause* is any Power or Influence productive of Existence; and an *Effect* is the Product, or Existence resulting from the *Energy* of the *Cause*. From hence, 'tis plain, no Being but God can exist without a Cause: He is the *primary Cause* of all *formal Existence* at least; and all other Causes act in Consequence of the *divine Energy* operating in the *settled Laws* and *Course* of *Nature*, and are therefore call'd *secondary Causes*. Again, Causes are *Universal*, as the *Sun*, *Earth*, and *Rain*, of *Plants*, *Herbs*, and *Flowers*; or *particular*, as the Seeds of *particular* Plants. Causes are call'd *Univocal*, when they produce Effects of their own Nature, as when a Lion produces a young Lion; or *Equivocal*, when the Effect is of a different Nature, as when a Man writes a Book. Again, Causes are *Solitary*, as when a Pestilence destroys a City; or *Social*, as when an Army of Officers and Soldiers conquer it. An *emanative Cause* is when the Effect flows without any Action to produce it, as Heat or Light from Fire. An *efficient Cause* is that from whose proper Action the Effect directly results; as when a Man bends a *Bow*, or the *Bow* gives flight to the *Arrow*, or the *Arrow* strikes the Mark. An *instrumental Cause* respects the *Means*, as the *Knife* in making a *Pen*. *Necessary Causes* are such as ever act from a Necessity of the Nature of Things; thus *intercepted Light* must produce *Shadow* or *Darkness*; *Fire* must necessarily *burn*, &c. A *contingent Cause* is that which *casually* acts, as a *Tile* falling on a Man's Head. A Cause is *accidental* when undesigned, as the Breaking a Window by throwing a Stone at a Bird. A *material Cause* is the *Substance*, as a Gold or Brass Ring. A *formal Cause* is the *Form*, as the Roundness and circular Space of a *Ring*. Besides these there are a great Number of other *Kinds* and *Divisions of Causes*, of too little Moment to be here insisted on.

Of Causes and Effects.

Primary Causes.

Secondary.
Universal.
Particular.
Univocal.

Equivocal.

Solitary.
Social.
Emanative.

Efficient.

Instrumental.
Necessary.

Contingent.

Accidental.
Material.

Formal.

Of Natural.

THAT is said to be *Natural* which is made or done according to, or results immediately from the settled Laws, and establish'd Order and Course of Nature, which God first founded in the general Disposition of the *Universe*, and the Constitution of Things. Thus the Gravitation of Bodies, the Vegetation of Plants, the

the Pulsation of Arteries, the Generation of Animals, &c. are said to be *natural Things*. That is said to be *Moral*, which proceeds from or pertains to *Manners*, *Conduct*, and *Government* of reasonable and intelligent Beings, endow'd with *Freedom of Will*, and under Obligations to particular Actions of Duty. Thus *Law*, *Virtue*, *Vice*, *Sin*, *Pardons*, *Rewards*, *Penalties*, &c. are of a *moral Nature*. That is *Artificial* which results from the *Art*, *Skill*, or *Contrivance* of Men; as, Arms, Statues, Pictures, Houses, Books, &c.

Moral.

Artificial.

Permanency is that State of *Being*, wherein the *Existence* is constant, uninterrupted, and without Change; as the *Position* of the *Sun* and *Stars* in the Firmament, the Colour of the Sky, the Body of the Atmosphere, the Rocks and Mountains of the Earth, &c. which are said to be *permanent Things*; tho' strictly speaking, there can be no *absolute*, but only *comparative Permanency* in any *corruptible* Beings.

Of Permanency.

Succession is that State of Being, which respects the Parts of Time, in which Things of a *cognate* Nature, or of the same *Kind*, *Order*, or *Line*, have their Existence, with regard to each other, so as they may be said to be *before* or *after* one another. This is either *immediate* or without Intervention of any other; as King *George* II. is the immediate Successor of King *George* I. Or it is *remote*, as the present King is a *remote Successor* to *William* the *Conqueror*. Again, with respect to the *Manner* of *Succession* it is either *direct*, as of *Persons* in a Stock or Family; or *alternate*, as of *Day* and *Night*; or *interchangeable*, as of the *Strokes* in the Changes on Bells. Also it is said to be *constant*, when there is no *Vacancy* of *Subjects* in any Part of the Line; and when there is, the Succession is said to be broken or interrupted.

Of Succession.

Immediate or Remote.

Direct, Alternate, or Interchangeable.

Constant and Interrupted.

Absolute and *Relative* Affections of Being are thus distinguish'd: A Thing is said to be *absolute* when it is consider'd as subsisting by itself, exclusive of all other Ideas of Existence whatsoever, or so as if no other Being was any more concern'd in the Speculation thereof, than if it did not really exist. But *relative* Affection, or *Relation* of Being, is the Respect or Habitude, which two or more Things have to one another, in regard of some common Property or Affinity of their Natures. Thus *Paternity* and *Sonship*,

Of Absolute and Relative.

Relation.

Greatness

Greatneſs and *Smallneſs*, are *relative Ideas*; ſo *Father* and *Son*, a *Part* and a *Whole*, the *Beginning*, *Middle*, and *End*, are *relative Terms*. In Relations, the Subject thereof, or Thing ſpoken of, is call'd the *Relate*; and the other Term, to which the Subject relates, is call'd the *Correlate*. Thus if we ſpeak of a *Father*, he is the *Subject* or *Relate*, and the *Son* is the *Correlate*; but if we ſpeak of a *Son*, the *Son* is the *Relate* or *Subject*, and the *Father* is the *Term* or *Correlate*.

Relate and Correlate.

Relations. *Natural.* *Moral.* *Reciprocal.* *Non-reciprocal* *Real.* *Mental.*

Relations are (1.) *Natural*; as *Root* and *Branch*, *Father* and *Children*, &c. (2.) *Moral*; which reſpects a *Law*, or *Rule* of Action, as *Good* and *Evil*, *Rewards* and *Penalties*, &c. (3.) *Reciprocal*, or *Synonymous*; as *Couſins*, *Neighbours*, *Partners*, *Ballances*, &c. (4.) *Non-reciprocal*; as *Cauſe* and *Effect*, *King* and *Subjects*, &c. (5.) *Real*; in Things which do *really exiſt*, as *Maſter* and *Scholar*. (6.) *Mental*; which are made only by the Mind; as *Genus* and *Species*, the *abſtract Ideas*, and *mental Signatures* of Things, as *Words*, *Terms of Art*, &c.

Of Subject and Adjunct.

Subject and *Adjunct* are next to be conſider'd; the *Subject* is the *Subſtance* of any Exiſtence with all the Eſſentials thereof; the *Adjuncts* are ſome *accidental Modes*, not neceſſary to the Exiſtence of the *Subject*; but are only certain *Appendices* or *Circumſtances* thereof; as *Time*, *Place*, *Light*, *Cloathing*, *Situation* of other Things or Perſons, and the *Concomitant*, *Antecedent*, or *Conſequent Events*.

Of Objects. *Immediate.* *Mediate.* *Remote.* *Common.* *Proper.* *Material.* *Formal.*

When we conſider Things as the Subjects of *Occupation*, *Operation*, *Science*, *Thought*, *Senſe*, &c. they are then call'd *Objects*; and are of ſeveral Sorts, *viz.* (1.) *Immediate*; as the *Words* and *Pages* of a Book are of a *Student*'s Occupation. (2.) *Mediate*; as his *Library of Books*. (3.) *Remote*; as *Notions*, *Arts* and *Sciences*, which are taught by thoſe Books. Again, they are (4.) *Common*; as the *Size*, *Figure* and *Motion* of Bodies are *common* to the two different Senſes of *Sight* and *Feeling*: Or, (5.) *Proper*; as *Colours* are to the Sight only. Laſtly, Objects are (6.) *Material*; as the Body of a Man is of *Anatomy*, *Phyſic* and *Surgery*; or, (7.) *Formal*; as *Diſſecting*, *Curing* or *Healing* of the Body, conſtitute the *formal Objects* of thoſe three Arts.

Of Number.

Number is that Affection of Being, wherein many ſingle, diſtinct, and ſeparate Subſtances are conſidered

as

as exiſting together, and making *one Idea* in the Mind; as ſuch and ſuch a Quotient of *Men*, *Trees*, *Houſes*, &c. When ſeveral Numbers are *added*, *multiplied*, or *divided*, the Reſult is call'd the *Sum*, *Product*, and *Quotient*, reſpectively. *Number* is ſaid to be *diſcrete Quantity*; as *Magnitude* is call'd *continued Quantity*. *Number* is *finite*, *indefinite*, or *infinite*, as well as *Magnitude*. See *Unity*, &c. *Quantity diſcrete.*

Order is that Affection of Being, wherein one Thing is conſider'd as exiſting before, together with, or after another Thing, and therefore may be ſaid to be *prior*, *ſimultaneous*, or *poſterior* to it. *Order* is *ſixfold*, viz. (1.) Of *Nature*; thus the *Father* is before the *Son*. (2.) Of *Time*; thus *Spring* is before the *Summer*, and *Autumn* after it. (3.) Of *Place*; as the *Horſe* is before the *Cart*. (4.) Of *Dignity*; as the *King* is before a *Duke*. (5.) Of *Science*; thus a *Line* muſt be known before an *Angle*. (6.) Of *Number*; as the *Fourth* is next in order *before* the *Fifth*, and *after* the *Third*. *Order, what*; *Of Nature*. *Time*. *Place*. *Dignity*. *Science*. *Number*.

Time, as conſider'd by *Ontologiſts*, is that Part of *Duration*, which terminates the *Interval* of the Exiſtence of Things; or, if conſider'd *phyſically*, is what we call *ſucceſſive Duration*; and is divided into the *Paſt*, the *Preſent*, and the *Future*, as is well known. See more of this under *Philoſophy*; and concerning the *Meaſures*, and *Civil Diviſions* of it, under the Title of *Chronology*. *Of Time*.

Ubiety is a Term uſed with reſpect to *ſpiritual Beings*, as *Locality* is with regard to *corporeal* ones, and is the very ſame Thing, *viz.* that Part of Space which circumſcribes the Exiſtence of Things at any given Moment of Time, and is commonly call'd their *Place*. See *Space* farther explain'd under *Philoſophy*. *Of Ubiety and Locality.*

Place is the Situation of Bodies, and is two-fold, *viz.* (1.) *Abſolute*, which is that Part of Space any Being fills up or poſſeſſes, conſider'd ſimply in itſelf. (2.) *Relative*, which is that Situation any Being has with reſpect to other quieſcent Bodies around it. *Place, what*. *Is two-fold*, *Abſolute an Relative.*

Unity is that Affection whereby any Thing ſubſiſts ſingly and alone in our Minds, from all others of a like Kind; and it is either *ſimple* or *compound* as to the Subſtance exiſting; as *one Flower*, or *one Noſegay*. *Union* is that whereby two or more Things become *Of Unity, and Union.*

one, or are ſo conſider'd; as *Metals*, in *Fuſion*, run together, and make one Subſtance; thus States unite under one Government. *Unity* and *Multiplicity*, *Singularity* and *Plurality*, are Oppoſites, and nearly of the ſame Signification in the like Terms of each.

Of Verity or Truth. *Verity* or *Truth* is divided by *Ontologiſts* into, (1.) *Metaphyſical Truth*, which conſiſts in a perfect Conformity of a Being to the *divine Intellect* or *Idea*, which is the *grand Pattern* of all created Beings. *Natural.* (2.) *Phyſical* or *Natural Truth*; which is when a Thing has all the Eſſentials requiſite to its Nature, as *Logical.* *pure Gold* is ſaid to be *true Gold*. (3.) *Logical Truth*; as when *Words* are conformable to their *Ideas*, or *Ethical.* *Propoſitions* to the *Things intended*. (4.) *Ethical* or *Moral Truth*; as when our Words or Actions agree with our Thoughts, and our Deeds to our Words; the firſt is call'd *Sincerity*, the latter *Veracity*.

Of Goodneſs or Bonity. *Goodneſs* or *Bonity* is defined to be the *Convenience* or *Agreement* of Things with the *Law* and *Standard* of their Nature, ſo that they poſſeſs all Qualities neceſſary to anſwer the Deſign thereof. This is alſo *Metaphyſical.* (1.) *Metaphyſical*; as when Things are agreeable to the *Will of God*, and *anſwer his Deſigns*. So he ſurvey'd his Works, and behold they were *very good*. *Natural.* (2.) *Phyſical* or *Natural*; when they are capable well to anſwer their *natural End*; as *Corn*, when *fit* for *Seed* or *Food*; ſo *Air*, when fine, pure, and fit for *Artificial.* Breathing. (3.) *Artificial*, as things are made or done near or agreeable to the *Standard* of *Perfection*; *Moral.* as *good Writing*, a *good Picture*, *Clock*, &c. (4.) *Moral*, which when it relates to *Man* is called *Virtue*, or *Religion* when it has a Regard to *God*. When *Truth* and *Goodneſs* both unite in Things, it is called *Perfection what.* *Perfection*; when either are wanting in any Degree, the Being is *imperfect*.

Of Signs, &c. *Signs*, *Repreſentations* and *Denominations* of Things are reckon'd among the *Mental* relative Affections of Being; but how juſtly I am not here to examine. *Signs* are the Reſemblances of ſome outward real Beings, which are thereby repreſented to our Minds. *Natural.* *Signs* are of various Kinds, as (1.) *Natural*, as a *Beard* *Divine.* is of *Manhood*. (2.) *Divine*; which is by God's Appointment, as the *Euchariſt* of the *Death* of Chriſt. *Human.* (3.) *Human*, or appointed by Men; as *Livery* to denote

note great Men's Servants. (4.) *Pigneratitious*, or mere *Tokens* or *Pledges*, which do not repreſent the Thing in itſelf; as the *Rainbow* is a Token which is only to ſhew and aſſure us, that the World will not any more be drowned. (5.) *Antecedent*, as *profuſe Management* is of approaching Poverty. (6.) *Concomitant*, as *Shivering* is of an Ague preſent. (7.) *Conſequent*, as a *Funeral* is of Death. (8.) *Memorial*, as a *funeral Ring* is of a Perſon deceaſed. (9.) *Commonſtrative*, as a *Tomb* of a Perſon buried there. (10.) *Neceſſary* and *certain*, as the *Morning Star* is of the *riſing Sun*. (11.) *Contingent* and *probable*, as *Prudence* and *Induſtry* are probable Signs of a Man's thriving in the World. (12.) *Prognoſtic*, *Diagnoſtic*, &c. Signs have been already explain'd in *Phyſic*. Beſides theſe, there are various Symbolical Signs and Repreſentations of Things invented and uſed by *Artiſts*; as the *Characters* of *Algebra*, *Muſic*, and other Arts and Profeſſions.

Pigneratitious

Antecedent.

Concomitant.

Conſequent.

Memorial.

Commonſtrative.

Neceſſary.

Contingent.

Prognoſtic, &c.

THIS *Compendium* of *Ontology*, 'tis hoped, will be ſufficient to ſhew that this is not a dry and unneceſſary Science, as it is too much reputed: but, on the contrary, that it is an excellent and uſeful one; as it ſupplies us with juſt Notions and true Diſtinctions and Differences of Things, in regard of which it merits the firſt Place in the Order of Sciences, and ought to be well digeſted in the Minds of all ſuch as would excel in critical and polite Literature.

Ontology recommended.

Of the ART *of* POETRY.

Poetry defin'd. POETRY or POESY is the Art, or rather the Faculty of *making Verſes.* And *A Poet, who.* a *Poet* is he who hath this *Art, Faculty* or *Skill* in its *genuine Perfection.* All others who *write Verſes* are term'd *Verſifiers, Poetaſters,* or *Paultry Rhymers*; all which are *A Poetaſter.* Terms of *Reproach,* and imply, that he who does not write *good Verſes,* muſt neceſſarily write *bad ones*; and that is a *Diſgrace.* Accordingly *Boileau* adviſes,

Rather be *Maſon,* ('tis an uſeful Art)
Than a *dull Poet:* For that Trade accurſt
Admits no *Mean* betwixt the *beſt* and *worſt.*
In *other Sciences,* without Diſgrace
A Candidate may fill a *ſecond Place:*
But *Poetry* no *Medium* can admit,
No *Reader* ſuffers an *indiff'rent Wit.*

Verſe defin'd. *Verſe,* eſpecially *Engliſh Verſe,* is compoſed of *Metre*
Metre, what. and *Rhyme. Metre* is when every Line is confined to a certain Number of Syllables, (as ten, eight, or ſeven, commonly) and the Words ſo placed that the *Accents* may naturally fall on ſuch *peculiar Syllables* as
Rhyme, what. make a Sort of *Harmony* to the *Ear.* And *Rhyme* is the *Similitude* or *Likeneſs of Sound* in the laſt *Syllables,* (or thoſe next the laſt) of every two or every other Line. As thus,

The Power that miniſters to God's Decrees,
And executes on Earth what he foreſees,
Call'd *Providence,* or *Chance,* or *fatal Sway,*
Comes with reſiſtleſs Force, or finds or makes her Way.

IN theſe Lines the two laſt Syllables in Order of every two Lines ſound alike, and therefore are ſaid to

rhyme

rhyme together; but in the following the *penultimate Syllables*, or thoſe next the laſt, rhyme to each other, and this is call'd *double Rhyme*. As, *Double Rhyme.*

Then all for Women, Painting, Rhyming, Drinking,
Beſides ten thouſand Freaks which died in Thinking.

Or thus;

When Pulpit, Drum Eccleſiaſtick,
Was beat with Fiſt inſtead of a Stick.

THERE are ſome Verſes found to have *treble Rhyme*, or wherein the *Antepenult*, or *third Syllables* from the laſt in every two Lines do *rhyme*; but as this is not worthy *Practice*, ſo it is not worthy *Mention*. *Treble Rhyme,*

Some Verſes rhyme to each other *alternately*; As,

Howe'er 'tis well that while Mankind
Through Fate's fantaſtic Mazes errs,
They can imagin'd Pleaſures find,
To combat againſt real Cares.
Fancies and Notions we purſue
Which ne'er had Being but in Thought,
And, like the doating Artiſt, wooe
The Image we ourſelves have wrought.

A *Stanza*, or *Staff* of Verſes, is an entire Strain, or *compleat Period in Verſe*: As, a Stanza of three Lines. *A Stanza of Verſes, what.*

Nothing, thou elder Brother ev'n to Shade!
Thou had'ſt a Being ere the World was made,
And (well-fix'd) art alone of ending not afraid.

A *Stanza* of four Verſes.

She ne'er ſaw Courts, but Courts could have undone
With untaught Looks, and an unpractis'd Heart;
Her Nets the moſt-prepar'd could never ſhun,
For Nature ſpread them in the Scorn of *Art*.

In Number of Verſes. THE Senſe ſhould always be finiſh'd in the *Stanza*; a *Stanza* in *Engliſh Poetry* cannot conſiſt of leſs than three, and has ſeldom more than twelve Verſes, except in *Pindarick Odes*, where the *Stanzas* vary very much.

An Ode or Song, what. AN *Ode* or *Song* is a certain Number of *Stanzas* more or leſs, and is proper to the *Lyric Poetry*, or that which was made and ſet to the *Lyre* or *Harp*.

A Poem defin'd. A *Poem* is a compleat and finiſh'd Piece of *Poetry*, or any *Compoſition* in *Verſe*.

Blank Verſe or Poetry. *Blank Poetry* or *Verſe* is that which has no *Rhyme*, but only *Metre*, *Harmony* of Syllables, and a delightful *Cadence* of the Accents. As thus in *Milton*:

——— I ſaw the riſing Birth
Of Nature from the unapparent Deep.
I ſaw when at his Word this formleſs Maſs,
The World's material Mould, came to an Heap;
Confuſion heard his Voice, and wild Uproar
Stood rul'd, ſtood vaſt Infinity confin'd;
Till at his ſecond Bidding, Darkneſs fled,
Light ſhone, and Order from Diſorder ſprung.

Of Poetical Numbers, Feet and Place. *Poetical Numbers*, and *Feet* and *Place*, may be underſtood as follows: In *Poetry* (eſpecially in the *Latin*, *Greek*, &c.) *Syllables* are diſtinguiſhed, according to *Quantity*, into *Long* and *Short*: The *long Syllable* hath this Mark —, the *ſhort* one this ˘; and a certain Number of theſe *long* and *ſhort Syllables* make a *Foot*, or the *Poetical Feet* of a *Verſe*. The *Place* or *Region* of a Foot in a Verſe is its *Situation* in regard of the Beginning; as the *Second*, *Fourth*, *Sixth*, are call'd *even Places*; the *Firſt*, *Third*, *Fifth*, are call'd *odd* or *unequal Places*.

Long and ſhort Syllables.

Poetic Foot or Feet.

Poetic Places.

Poetic Feet, and their Kinds. OF Feet ſome be of *two Syllables*, ſome of *three*, as here follow.

A Foot of two Syllables is fourfold.

A Spondee,	two Long,	- -	
Pyrrhic,	two Short,	˘ ˘	
Trochee,	one Long and one Short,	- ˘	Wātĕr
Iambic,	one Short and one Long,	˘ -	Dĕlīght

A Foot of three Syllables.

A Moloſs,	three Long,	- - -	
Tribrach,	three Short,	˘ ˘ ˘	
Dactyl,	one Long and two Short,	- ˘ ˘	Pō̆ĕtrў.
Anapeſt,	two Short and one Long,	˘ ˘ -	Dŏmĭnēer.

WE

We have no *Engliſh* ſingle Words which have the Quantity of the *Spondee*, *Pyrrhic*, *Moloſs*, and *Tribrach*; and accordingly I have left their Places vacant. And indeed in *Engliſh Poetry*, there is very *ſmall Variety* of Feet, the *Iambic* being as it were ſole Regent of our *Verſe*; according to Mr. *Brightland*:

If Pulſe of Verſe a Nation's Temper ſhows,
In keen *Iambics* Engliſh Metre flows.

But as ſome *Variety* is neceſſary to pleaſe, our *Poets*, maugre the *Genius* of their Tongue, do very gracefully admit ſometimes a *Trochee*, ſometimes a *Dactyl*, &c. into their Compoſitions. As the ſame Author proceeds:

Two Syllables our *Engliſh Feet* compoſe,
But Quantities diſtinguiſh them from *Proſe*:
By *long* and *ſhort* in various Stations plac'd
Our *Engliſh Verſe* harmoniouſly is grac'd.
With *ſhort* and *long* Heroic Feet we raiſe,
But theſe to vary is the Poet's Praiſe;
For the *ſame Sounds perpetually* diſguſt:
Dryden to this Variety was juſt.

The Kinds of Verſe.

If a *Verſe* conſiſts of *ſix Places* or *Feet*, 'tis call'd an *Hexameter Verſe*; of this Sort were all the *Compoſitions* of *Latin* and *Greek* Heroic Poetry, as the *Æneiad* and *Iliad*. But if the Verſe has but *five Feet*, 'tis call'd *Pentameter*. If a Verſe abounds moſtly with *Iambics*, 'tis call'd *Iambic Verſe*; and thus it is named in reſpect of the other Feet.

Of the different Natures and Qualities of the ſeveral kinds of Feet.

Of the ſeveral Kinds of *Feet* above ſet down, the *Spondee* and the *Dactyl* are the moſt conſiderable, as being the Meaſures uſed in the *Heroic Verſe* by *Homer*, *Virgil*, &c. Theſe two Feet are of *equal Time* (for *two ſhort Syllables* are equal to *one long one*) but of *different Motion*. The *Spondee* has an *even*, *ſtrong*, and *ſteady Pace*, which may be compar'd to a *Trott*: But the Motion of the *Dactyl* is *briſk*, and reſembles the nimbler Strokes of a *Gallop*. An inverted *Dactyl* is an *Anapeſt*, a very ſprightly *Trott*, and a Motion proper to excite and enrage. The *Iambic* is alſo of a light and ſprightly Nature. The *Trochee* is of a con-

trary one, fit to expreſs weak and languid Motions; as all thoſe Meaſures which move from *long* to *ſhort Syllables*. The *Pyrrhic* and *Tribrach* are very *rapid*, as the *Moloſs* is *ſlow* and *heavy*. The Verſe is generally ſo order'd by the *ſkilful Poet*, that it in ſome meaſure expreſſes the very *Nature* and *Modes* of the Subject, by the *Number* and *Sound* of the *Feet* and *Syllables*. This Mr. *Pope* gives an elegant Inſtance of, when, to ſhew how *heavy* and *dull* the *French Monoſyllable* Poetry is, he ſaith,

And *ten low* Words oft creep in *one dull Line*.

Which Line is an Inſtance of what he reproves; for there are indeed *ten Monoſyllable* Words, which ſeem to *creep* heavily through the Line, and make it *dull* and *flat*.

Of the Kinds of Poetry.

THERE are various Kinds of *Poetry* conſtantly in Uſe; the *Subject*, *peculiar Characters*, and a *Poetical Deſcription* of the moſt conſiderable Sorts, I ſhall give the Reader from Mr. *Brightland*, *Boileau*, &c. And firſt

Of *BUCOLICS*, or *PASTORAL*.

Of Bucolic, or Paſtoral; and Georgics.

THIS ſort of Poetry is call'd *Paſtoral*, becauſe it is an Imitation of a *Shepherd*'s Life, or that of *Rural Nymphs* and *Swains*. It is alſo call'd *Bucolics* from the *Cow-herds*, &c. which were the *Subject* of their Employment: As *Georgics* are Poems ſo call'd from *Huſbandry* and *Agriculture*, the Subjects about which they are employ'd.

The *Paſtoral* that ſings of happy *Swains*,
And harmleſs *Nymphs* that haunt the Woods and [Plains,
Should through the whole diſcover ev'ry where
Their true *Simplicity* and *pious Air*;
And in the Characters of *Maids* and *Youth*,
Unpractis'd *Plainneſs*, *Innocence* and *Truth*.
As a fair *Nymph*, when riſing from her Bed,
With ſparkling *Diamonds* dreſſes not her Head;

But,

But, without *Gold*, or *Pearl*, or *coſtly Scents*,
Gathers from neighb'ring Fields her Ornaments:
Such, *lovely* in its Dreſs, but *plain* withal,
Ought to appear a perfect *Paſtoral*.
Its Style muſt ſtill be *natural* and *clear*,
And *Elegance* in every Part appear;
Its *humble Method* nothing has of *Fierce*,
But hates the *Rattling* of a *lofty Verſe*.
There *native Beauty* pleaſes and excites,
And never with *harſh Sounds* the Ear affrights.
Oppos'd to this another, *low* in *Style*,
Makes *Shepherds* ſpeak a Language *baſe* and *vile*:
His Writings *flat* and *heavy*, without Sound,
Kiſſing the *Earth*, and *creeping* on the *Ground*.
Each *Paſtoral* a *little Plot* muſt own,
Which as it muſt be *ſimple*, muſt be *one*:
With *ſmall Digreſſions* yet it will diſpenſe,
Nor needs it always *Allegoric Senſe*.
The *Paſtoral* admits of *Vows* and *Praiſe*,
Of *Promiſes*, *Complaints*, of *Mirth* and *Joys*,
Congratulations, *Singing*, *Riddles*, *Jeſts*,
Of *Parables*, *Sentences*, and the reſt.
In *Paſtorals* to know what *Rules* are *right*,
For Guides take *Virgil*, and read *Theocrite*;
Be their *juſt Writings*, by the Gods *inſpir'd*,
Your *conſtant Pattern*, practis'd, and admir'd.
By them *alone* you'll eaſily comprehend
How Poets, without Shame, may condeſcend
To ſing of *Gardens*, *Fields*, of *Flowers* and *Fruit*,
To ſtir up *Shepherds*, and to *tune* the *Flute*:—
This of their Writings is the *Grace* and *Flight*,
Their *Riſings lofty*, yet not *out of Sight*.

Of *ELEGY*.

Of Elegy, and its Properties.

An *Elegy* is a *mournful Poem*, a *funeral Song* or *Ditty*; firſt invented to *bewail* the *Death* of a Friend, the Coyneſs or Cruelty of a *Miſtreſs*; and to expreſs all other *plaintive*, *mournful* and *melancholy* Subjects and Themes. In *Elegy* the Paſſions of *Grief*, *Deſpair*, *Reſentment*, &c. ought to predominate. The *Strains* ſhould abound with frequent *Commiſerations*, *Complaints*, *Exclamations*, and ſhort and proper *Digreſſions*.

Digreſſions. The Meaſure ſhould be *Heroic Verſe*, as the moſt *ſolemn*. The *Sentiments* and Numbers ſhould be *ſoft* and *ſweet*; the *Diction*, *neat*, *clean*, *ſoft*, *ingenuous* and *open*, *plain*, *modeſt*, *tender*, full of the *Affections* and the *Pathetic*. Or thus;

The *Elegy* demands a *ſolemn Style*,
It *mourns* with flowing Hair at fun'ral Pile,
It paints the Lover's *Torments* and *Delights*,
A Miſtreſs *flatters*, threatens, or invites.
But well thoſe Raptures if you'd let us ſee,
You muſt know *Love* as well as *Poetry*.
The *Model* of this Poem ſhould be made,
And every Part of all its Structure laid,
And all directed to ſome certain End,
And Verſe on Verſe perpetually depend,
And all concerted e'er one Line be pen'd.
No glitt'ring *Points*, nor any *nice Conceit*,
Should load the *Elegy* with *foreign* Weight;
Paſſion and *Nature* here avow their *Right*,
And with Diſdain throw back that mean Delight.
Remember that the *Diction* ev'ry where
Be *gentle*, *clean*, perſpicuous and clear,
Correct; the *Manners* all along expreſs,
In ev'ry Place the *Paſſions* ſtill confeſs.
No *cutting off the Vowels* muſt be found,
For that deſtroys its *ſmooth* and *flowing Sound*.

MOREOVER *Apoſtrophes*, or Addreſſes to Things or Perſons; *Proſopopœia's*, or feigned Perſons; *Alluſions* to Sayings; Examples from the *Like* and *Unlike*, and Contraries; ſometimes *Compariſons*, and above all, ſome *Signification* of *Antiquity*, beautify and adorn this Poem.

The *LYRIC.*

Of the Lyric. THIS is diſcern'd and diſtinguiſh'd from all other Parts of Poetry by a peculiar *Suavity* or *Sweetneſs*, which is its *Characteriſtic*. In this Sort of Poetry (ſays the Jeſuit *Pontan*) the Poet applies himſelf entirely to ſooth the Minds of Men by *Sweetneſs*, and the *Variety* of the Verſes, and the *exquiſite Elegance* of

of the *Diction*, in the *Beauty* and *agreeable Cadence* of the *Numbers*, and the *Deſcription* of Things *moſt delightful* in their Natures.

THE *Subject*, or *Subſtance* rather, of *Lyric Poetry* is *Song* or *Ode*. The *Ode* originally had but one *Strophe* or *Stanza*; but was at laſt divided into three Parts, *Strophe*, *Antiſtrophe*, and *Epode*. For as the Prieſts went round the *Altars*, chanting the Praiſes of the Gods in Verſe; ſo they call'd their firſt *Turning* to the Left *Strophe*, and their *Returning* on the Right they call'd *Antiſtrophe*; and the Verſes ſung they call'd *Ode* and *Antode*: At laſt, ſtanding *before* the *Altar*, they ſang the reſt, which they call'd the *Epode*. The *Greeks* call'd thoſe *Odes*, which were ſet to *Inſtruments*, as the *Lyre*, *Pſaltery*, &c. *Pſalms*; and the Singing them, *Pſalmody*; but thoſe *Songs* or *Odes* wherein they ſang *the Praiſes of their Gods*, they call'd *Hymns*, and the Chanting them, *Hymnody*.

Lyric Poetry conſiſts in Ode or Song.

The Parts of an Ode Strophe, Antiſtrophe, and Epode.

Pſalms and Pſalmody.

Hymns and Hymnody.

Sweetneſs is moſt peculiar to the *Ode*,
Ev'n when it riſes to the Praiſe of *God*.
To Heav'n it mounts in its ambitious Flight,
And 'mongſt *the Gods* and *Heroes* takes Delight.
Variety of *Numbers* ſtill belong
To the ſweet *Melody* of *Ode* or *Song*.
Th' *Expreſſion* ſhould be *eaſy*, *Fancy* high;
That ſhould not ſeem to *creep*, nor *this* to *fly*:
No Words *tranſpos'd*, but in ſuch Order all,
That tho' *hard wrought*, may ſeem *by Chance* to fall.
No *uſeleſs Line* in *Odes* can find a *Place*,
Nor a *repeated Word* appear with *Grace*.
But *obſcene Words* for ever give *Offence*,
And in *all Poetry* debaſe the *Senſe*.
The *generous Style* from *ſtricteſt Rules of Art*
With *Grace* and *brave Diſorder* may depart.

The Qualities of this Poem.

The *PINDARIC* ODE.

THIS Sort of *Ode* is call'd *Pindaric*, from the Inventor *Pindar*, an antient *Grecian*, whom *Alexander* eſteem'd ſo much, that when he deſtroy'd the City *Thebes*, he ſpared only *Pindar* and his Family of all the Inhabitants. This Sort of *Ode* is employ'd in all manner

Of Pindaric Verſe.

manner of Subjects, *Pleaſant*, *Grave*, *Amorous*, *Heroic*, *Philoſophical*, *Moral*, *Divine*. *Cowley* was the firſt who introduced this Sort of *Poetry* into our Tongue; and his firſt *Stanza* of his *Ode* on *Liberty*, is both a good Deſcription, and proper *Idea* of this Kind of *Ode*, which is as follows.

An Example of Cowley's.

If Life ſhould a well-order'd Poem be,
In which he only hits the White
Who joins true Profit with the beſt Delight;
The more *heroic Strain* let others take,
Mine the *Pindaric Way* I'll make:
The *Matter* ſhall be *grave*, the *Numbers looſe* and *free*.
It ſhall not keep *one ſettled Pace of Time*,
In the ſame *Tune* it ſhall not always chime,
Nor ſhall *each Day* juſt to his *Neighbour rhyme*.
A thouſand *Liberties* it ſhall *diſpenſe*,
And yet ſhall manage *all* without *Offence*,
Or to the *Sweetneſs* of the *Sound*, or *Greatneſs* of the *Senſe*.
Nor ſhall it ever from *one Subject ſtart*,
Nor ſeek *Tranſitions* to *depart*;
Nor its ſet Way o'er *Stiles* and *Bridges* make,
Nor thro' the Lanes a Compaſs take,
As if it fear'd ſome Treſpaſs to commit,
When the *wide Air*'s a Road for it.

So the Imperial *Eagle* does not ſtay
'Till the whole *Carcaſs* he devour
That's fall'n into his Power;
As if his gen'rous Hunger underſtood
That he can never want Plenty of Food,
He only ſucks the taſteful Blood,
And to *freſh Game* flies chearfully away,
To *Kites* and *meaner Birds* he leaves the *mangled Prey*.

SATYRE.

Of Satyre.

Satyre is a *free*, *jocoſe*, *witty*, and *ſharp* Poem, ſeverely inveighing againſt *Vice*, and all *corrupt Manners* and *Perſons*, and in ſhort, whatever deſerves our *Laughter* or *Abhorrence*.

Its Matter.

The *Matter* therefore of Satyre is *Turpitude*; its Manner, *Invective*; and its End,

End, *Shame*. *Satyre* inveighs againſt and derides the *Slothful*, the *Paraſite*, the *Loquacious*, the *Ingrateful*, the *Libidinous*, *Drunkards*, the *avaricious Uſurers*, *Bravo's*, *Robbers*, *Adulterers*, &c. *Satyre* is the *Phyſician* of a *diſtemper'd Mind*, and endeavours the *Cure* by bitter and unſavory, yet ſalutary *Applications*; if the *Diſorder* continues, it acts *chirurgically*, *cuts*, *cauterizes*, and *ſpares* not.

THAT *Satyre* be *juſt*, it ought to be *general* and *true*; otherwiſe it degenerates into a *Libel*, or ſcurrilous *Lampoon*, and accountable to the Law. It ought to be *ſtrong*, and to ſtrike *powerfully*; and the *Style* and *Manner* muſt be *manly* and *ſmooth*. *Qualities.*

Folly and *Vice* of ev'ry Sort and Kind, *Its Uſe, End,*
That *wound* our *Reaſon*, or *debaſe* the *Mind*; &c.
All that *deſerves* our *Laughter* or our *Hate*,
To *biting Satyre's* Province do relate.
The *Slothful*, *Paraſite*, *affected Fool*,
Th' *Ingrateful* and the pert *loquacious Tool*,
The *Luſtful*, *Drunkard*, th' *avaricious* Slave,
The *noiſy Bravo*, and the *tricking Knave*,
Satyre by wholeſome Leſſons would reclaim,
And *heal* their *Vices* to *ſecure* their *Fame*.
The *Latin Writers* decently neglect,
But *modern Readers* challenge our Reſpect;
And at *immodeſt Writings* take *Offence*,
If *clean Expreſſions* cover not the *Senſe*.
Satyre ſhould be from all *Obſceneneſs* free,
Not *impudent*, and yet preach *Modeſty*.
Our *Freedom* in our *Poetry* we ſee,
That *Child* of *Joy*, begot by *Liberty*;
But, *vain Blaſphemer*, tremble when you chuſe
God for the *Subject* of your *impious Muſe*:
At laſt, the *Jeſts* which *Libertines* invent
Bring the *lewd Authors* to *juſt Puniſhment*.
Tho' *Vice* and *Folly* be *keen Satyre's* Aim,
It ſhould not on their *Natures* here *declaim*.
Good Satyre comes not but from Men of *Senſe*,
Wit, and *Sagacity*, and *Eloquence*.
Of good *Addreſs*, and ſuch a *Poignancy*
As may conſiſt with *Mirth* and *Pleaſantry*.
A *Satyre* knows no Parts; but on our Sins
Abruptly falls, or *gradually* begins:

But

But this Abruptneſs muſt regard the *Whole*,
Which muſt its *Words*, and *Manners* too, controul.
Let *flowing Language* utter all you ſay,
And *ſmootheſt Words* ſhould *ſharpeſt Thoughts* convey.

Of *COMEDY*.

Of Comedy, and Dramatic Poetry.

Drama, what.

COMEDY is one of the great Parts of *Dramatic Poetry*, or that which is *acted* on a *Stage*, in the *Manner* of a *Play*: A *Drama* being any *Poetry acted* by Perſons on a Stage, and is call'd a *Play*. This is the moſt *uſeful*, *difficult*, as well as the moſt *delightful* Sort of *Poetry*; of which, as I ſaid, *Comedy* is one *great Part*. *Comedy* is an agreeable *Imitation* or *Repreſentation* of the *Actions*, *Humours*, and *Cuſtoms* of common Life. Its End is to deride *Vice* and *Folly*, and to recommend *Virtue*, not ſo much by *Deſcription* as *perſonal Action*; that *Spectators* may ſee and be aſham'd of the *Baſeneſs* and *Deformity* of *Vice*, in the *Actions* and *Perſons* of others, which they do not mind or regard in themſelves.

The Parts of Comedy, five.

Prologue.

Protaſis.

Epitaſis.

Cataſtaſis.

Cataſtrophe.

COMEDY has *five Parts*, viz. (1.) The *Prologue*, which is a Speech made to the Spectators before the Play begins; wherein the *Poet* is commended, the Objections anſwer'd, the Argument of the *Play* declared, *&c.* (2.) *Protaſis*; this is the firſt Part of the *Play*, in which the Sum of the *whole Matter* is related and propoſed, but the End is not yet diſcover'd: This is contain'd in the *firſt*, and ſometimes the *ſecond Act* alſo. (3.) *Epitaſis*, or *working up of the Plot*, wherein the *Play* grows warmer, the *Deſign*, or *Action*, or *Plot* draws on and thickens, and you ſee ſomething promiſing. (4.) *Cataſtaſis* is the full Vigour and State of the *Plot*, which is now brought to its greateſt Height; but here your *Expectation* is deſtroy'd, and the Action embroil'd in new Troubles. (5.) *Cataſtrophe*, or the *Diſcovery* or *Unravelling* the *Plot*; here you ſee all Things ſettling again on their firſt Foundation, and terminate in an *unexpected happy Iſſue*. This employs the fifth, and ſometimes both the fourth and fifth Acts of the *Play*, for there are never more nor leſs than five Acts.

THE

THE *Plot* or *Fable* is the *Subject Matter* of the *Drama*, or *Play*: An *Act* is a Part of the *Fable*, which contains *divers Actions* according to the *Diverſity* of the Parts: And the *Scene* is a Part of an *Act*, wherein two or more Perſons are diſcourſing and acting together. As to the *Perſons*, *Manners*, *Sentiments*, *Diction*, &c. ſee the following Verſes. *The Plot or Fable of the Drama, what.*

To four *eſſential* Things w'aſſign a Part, *The Fable, Manners, Sentiments and Diction.*
In every *Comedy* that's writ with Art;
The *Fable*, *Manners*, *Sentiments* are theſe,
And *proper Diction* that muſt all expreſs.
The *Fable* is the *Plot* that is deſign'd
To *imitate the Actions* of Mankind;
But without *Manners* theſe cannot be drawn,
In them the Temper and the Humour's ſhown,
As by the *Sentiments* theſe are made known.
The *Diction* is the Language that does ſhow
In Words, the Sentiments which from them flow.
Obſerve the *Characters* of thoſe that ſpeak,
Whether an *honeſt Servant*, or a *Cheat*,
Or one whoſe Blood boils in his youthful Veins,
Or a *grave Matron*, or a buſy *Nurſe*,
Extorting *Tradeſmen*, careful *Huſbandmen*:
Boys muſt not have th' ambitious Cares of *Men*,
Nor *Men* the weak Anxieties of Age.
Expoſe no *ſingle Fop*, but lay the Load
More *equally*, and ſpread the *Folly broad*.
The other Way is *Vulgar*; oft we ſee
A *Fool* derided by as *great* as He:
Ill Poets thus will *one poor Fop* devour;
But to collect, like *Bees*, from ev'ry Flower
Ingredients to compoſe the precious Juice,
Which ſerves the World for *Pleaſure* and for *Uſe*,
In ſpight of *Faction* will our *Favour* find,
And meet with the *Applauſe* of all Mankind.
None can with their *fix'd Characters* diſpenſe;
Fools ſin, if they pretend to *Wit* or *Senſe*.
The *Merchant*, *Soldier*, *Student*, *Miſer*, *Beau*,
In their *Demeanour*, *what they are*, muſt ſhow.
That ſilly Thing, Men call *Sheer-Wit*, avoid,
With which our *Age* ſo nauſeouſly *is cloy'd*.
Humour is all, *Wit* ſhould be only brought
To *turn* agreeably ſome *proper Thought*.

Of *TRAGEDY.*

Of Tragedy. *TRAGEDY* is the moſt *ſublime* and *uſeful* of all *Dramatic Poeſy:* In this the *Calamities* of *illuſtrious Perſons* are acted by *dramatic Perſons*, to the *The End and Deſign thereof.* End that the *Minds* of the *Audience* may be affected with *Pity*, *Mercy*, *Terror*, &c. and be made *aware* of the *diſaſtrous Occaſions* of thoſe *Tragical Events*, which are the *Subſtance* of the *Play.* In a *Tragedy* 'tis not abſolutely neceſſary there ſhould be *hiſtorical Truth*, but there muſt always be a *Probability.* There *The Unities of Action,* are three *Unities* in *Tragedy:* (1.) The *Unity* of *Action*; the *Action* muſt always be *one*, and not *all* the *Actions* of a Man's Life; this muſt be *entire*, and have a *Beginning*, *Middle*, and *End*; and the Whole of ſuch a Nature, as is apt to excite *Pity*, *Terror*, and *Time,* to refine the *Paſſions* in general. (2.) The *Unity* of *Time*; which *Critics* differ about notwithſtanding; ſome allowing but four or five Hours, ſome ten, others fifteen, and *Dryden* twenty-four, for the Time of the *and Place.* *Action.* (3.) The *Unity* of *Place*; which requires but *one Scene* throughout the *Play:* though this is not obſerv'd in ſome of the moſt *ſucceſsful Tragedies.*

The Parts of Tragedy. A *Tragedy* compleat *four Parts* does claim:
Fable the firſt and principal we name;
The *Manners* and the *Sentiments* ſucceed,
And the laſt Place to *Diction* is decreed.

The Fable. The *Fable* is of *Tragedy* the *End*,
To which the *grand Deſign* does wholly tend;
The Poet here employs his *Care* and *Art*
To move the *Paſſions*, and incline the *Heart.*
But if, in labour'd Acts, the *pleaſing Rage*
Cannot by Turns our *Hopes* and *Fears* engage,
Nor in our Minds a *feeling Pity* raiſe,
In vain with learned Scenes he fills his Plays.

The Manners. The *Manners* next, by the *Dramatic* Laws,
As they of Action are the Source and Cauſe,
Demand our *Study*, and our utmoſt *Care*;
By thoſe the Perſons their Deſigns declare,
And from each other beſt diſtinguiſh'd are.

The

The *Sentiments* obtain the next Degree, *The Sentiments.*
Tho' leaſt in Excellence of all the three.
The *Sentiments* the *Manners* do expreſs,
But ſuch as *Truth* and *Likelihood* poſſeſs.
A *Lie* or *Wonder* cannot entertain;
The Mind's *chagrin'd* if the Diſcourſe be vain.
The *Diction* muſt the *Sentiments* unfold, *The Diction.*
Which in their proper Language muſt be told.
As noble Thoughts muſt every where abound,
Be *eaſy*, *pleaſant*, *ſolid* and *profound*;
To them *ſurprizing Touches* you muſt join,
And ſhew us a *new Wonder* in each Line.
The *Unites* of *Action*, *Time*, and *Place*, *The Unites.*
Keep the Stage full, and give the *Play* a *Grace.*
Thus all in a juſt Method well deſign'd,
Leaves ſtrong Impreſſions on the docile Mind.

Of the EPIC *or* HEROIC POEM.

AN *Heroic* or *Epic Poem* is a Diſcourſe invented with *Art*, to form the *Manners* by Inſtructions, diſguiſed under the *Allegory* of an *Action*, which is *important*, and related in *Verſe* in a *delightful*, *probable*, and *wonderful* Manner. *Of the Heroic or Epic Poem.*

OR thus: It is the Imitation of one *Action*, *illuſtrious*, *compleat*, and of a certain *Magnitude* or *Duration*, which by a *Narration* in *Hexameter* (or *Heroic*) *Verſes* excites *great Men* to *primary* and *heroic Virtues* with *Admiration* and *Delight*. The *Epic* hath *five Parts*, the *Action*, *Fable*, *Manners*, *Sentiments* and *Diction*. *Its Parts.*

THE *Action* ought to be, (1.) *One*; that is, perform'd by *one Hero*, and in *one continued Space of Time* without Intermiſſion; and *ſuch*, moreover, as cannot be divided into other *whole and compleat Actions*. (2.) *Illuſtrious*; and therefore of *great* and *principal Men*, and *Heroes*; and in *ſplendid* and *weighty Matter*. (3.) *Compleat*, to which none of all the *Incidents* may be wanting, which are neceſſary to render it *abſolute* and *perfect* to the End. (4.) Of a certain *Magnitude* or *Duration*, which is generally defined to be in *the Space of a Year or leſs.* *The Action.*

Fable. THE *Fable* is the *Form*, and artful Repreſentation of the *Action*, which is the *Matter* of the *Poem*; the *Manners*, *Sentiments*, and *Diction* are the neceſſary Ornaments of the *Fable*. The *Fable* conſiſts of ſome Parts plainly neceſſary; as, (1.) The *Exordium*, or *Beginning*; wherein the *Action* of the *Poem* is propoſed, the Deity invoked, and ſometimes the Work dedicated to ſome *great Man* or *Friend*. (2.) The *Connection*; which is a *Series* of *various caſual Events* continued to that Part of the Work, where the *Action* receives a *favourable* or *unhappy* Turn. (3.) The *Solution*, which is all the *Remainder* of the Poem, from that *Turn* of the *Action* to the End.

Epiſodes. THE *unneceſſary* Parts of the *Fable* are the *Epiſodes*, or *Under-actions*; as *ſmall Digreſſions*, *Relations* of other Matters, *&c.* which, tho' they are not an *eſſential Part*, ought always to be *congruous* and *dependent* on the *main Action*, and very *pathetic*.

Manners, &c. THE *Manners* and *Sentiments* fall under the *ſame Rules* as thoſe of *Tragedy*; but the *Diction* is more *ſublime*, *noble*, and *figurative*, and the *beſt* that *Language* and *Art* can produce.

The Properties of this Poem in Verſe.

We've told the Rules which *Tragedy* maintain,
But the *Heroic* claims a *loftier Strain*.
In the *Narration* of ſome *great Deſign*
Invention, *Art*, and *Fable*, all muſt join:
Here *Fiction* muſt employ its utmoſt Grace,
All muſt aſſume a *Body*, *Mind*, and *Face*.
Would you your *Reader* never ſhould be tir'd?
Chuſe ſome *great Hero* fit to be admir'd.
In *Courage* ſignal, and in *Virtue* bright;
Let ev'n his *Imperfections* give *Delight*.
Let his *great Actions* our *Attention* blind;
Like *Cæſar* or like *Scipio* frame his Mind.
And not like *OEdipus* his perjur'd Race;
A *common Conqueror* is a *Theme* too baſe.
Chuſe not your *Tale* too full of *Incidents*;
Too great *Variety obſcures* the *Senſe*.
Achilles' Rage alone when wrought with Skill
Abundantly does a whold *Iliad* fill.
Be your *Narrations lively*, *ſhort*, and *ſmart*;
And in *Deſcriptions* ſhew your *nobleſt Art*.

There

There 'tis your *Poetry* may be employed;
But *trivial Accidents* be ſure t'avoid.
Let no *mean Objects* ſtay the *curious Sight*;
Allow your Work a *juſt* and *noble Flight*.
Be your Beginning plain, and take good heed
Too ſoon you mount not on the *airy Steed*;
Nor tell your Reader in a *thund'ring* Verſe,
I ſing the Conqueror of the Univerſe.
What can an Author after this produce?
The lab'ring Mountain muſt bring forth a Mouſe.
In the abounding Treaſure of his Mind
The Poet does a *thouſand Figures* find;
With theſe *gay Ornaments* his *Story grace*,
And ev'ry thing in *beautious Colours* trace.
At *once* he is both *Pleaſing* and *Sublime*,
And ſcorns a *heavy melancholy Rhyme*.
Thus *Homer*'s Works *vaſt Treaſures* do unfold,
And whatſoe'er he touches turns to Gold.
All in his Hands *new Beauty* does acquire,
He always *pleaſes*, and can never *tire*.
A *happy Warmth* he every where may boaſt,
Nor is he in *too long Digreſſions* loſt.
His Verſes *without Art* a *Method find*,
And *of themſelves* appear *in Order* join'd.
All *without Trouble* anſwers his *Intent*,
Each Syllable ſtill tends to the *Event*.
Let his *Example* your *Endeavours* raiſe;
To *love his Writings* is a *kind of Praiſe*.
How great the Work! *Three thouſand Years* have paſs'd,
Yet but *three Poets* have this *Poem* grac'd;
Firſt *Homer*, *Virgil* next, then *Milton* both ſurpaſs'd.

We have now view'd the *nobleſt* and moſt *magnificent* Structures of the *Art* of *Poetry*: But there yet remain ſome *low* and *meaner Buildings* and *Out-houſes*, which make, as it were, the *Suburbs* of the *Art*, and afford Habitation to great Numbers of the *meaner Sort* of the *rhyming Tribe*, which we ſhall take but very ſhort Notice of, and ſo leave them. The Principal of theſe is

The *EPIGRAM.*

Of Epigram.

AN *Epigram* is a ſhort *witty Poem*, or Copy of Verſes, playing on the *Fancies* and *Conceits*, ariſing from *any kind* of *Subjects*, and whoſe diſtinguiſhing and peculiar *Characters* are *Brevity*, *Beauty* and *Point*; which laſt is a *ſharp and biting Turn* of *Wit*. In this *Martial* is a *Maſter-piece.*

Its Characters and chief Properties.

The *Epigram*, with little Art compos'd,
Is *one good Sentence* in a *Diſtich* clos'd;
Though it to *twenty Verſes* may extend,
But *beſt* when it in *two* or *four* does end.
The *Epigram* in *Shortneſs* takes Delight,
And though *all Subjects* are its proper Right,
Yet *each* of *one* alone can only write.
Two Parts this *little Whole* muſt ſtill compoſe,
Recital of the Subject, and the *Cloſe*.
To make this *Poem perfect*, be your Care
That *Beauty*, *Points*, and *Brevity* appear.

Acroſtic and Anagram.

THE *ACROSTIC* is a *Poem* or *Number of Verſes*, whoſe *Property* is, that the *Initial Letters* of the Lines make up ſome Perſon's *Name*, *Title*, or ſome particular *Motto*. But Mr. *Spectator* is not certain which was the greateſt *Blockhead*, he who invented *Acroſtic*, or the Inventor of the *Anagram*; but however he has done both the *Acroſtic* and the *Anagram* the Juſtice to reckon them *firſt* among the *Species of falſe Wit.*

An Epithalamium, what.

AN *EPITHALAMIUM* is a *Nuptial* Song or *Poem:* This is ſung on the *Wedding-Night*; the Subject of which are the *Joys* and *Praiſes* of the *Bride* and *Bridegroom*. Here the Poet takes notice of the *Country*, *Kindred*, *Courſe of Life and Studies*, the *Beauties* of their *Perſons*, and the *Endowments* of their *Mind*, and celebrates them all. He dwells on the Felicity of *Matrimony*, of their *Nuptials* in particular, and the *Events* which brought it about. He ſweetens the *Diction* with *Kiſſes* and other *conjugal Amours* and *Endearments*; he introduces a *Chorus* of *Deities*, the *Graces* and the *Muſes*, all exulting with Joy,

Joy, and promiſing to crown the *new-married Couple* with all *auſpicious Events*. In fine, he makes the *Graces* put them to Bed, and there leaves them to the *Directions* of *Hymen* and *Venus*; and, without Heſitation, propheſies of their *future numerous Offſpring*, and wiſhes them all *Happineſs for a Concluſion*.

Genethliacon or Birth-Day Ode.

GENETHLIACON is a *Birth-Day* Ode or Song; wherein the Poet ſaith abundance of fine Things concerning both the Child's *Parents* and *Pedigree*, and the *Child*, or *new-born Infant* itſelf. The *brave* and *heroic Actions* of the Parents, their Family or Anceſtors are commemorated, their *ſignal Virtues celebrated*. The *propitious* Influences of the *Deity*, the *Stars*, the *guardian Angels*, and eſpecially the *Genius* which rules the Birth and attends the Child through his *Life*, are all celebrated in the moſt *auguſt Manner*. He alſo takes notice of the *Oracles*, *Auguries*, *Dreams* of the Parents, *&c.* which preceded the Birth; and concludes with wiſhing the *Life* and *good Fortune* of the *Babe*, and the *Parents* all *Happineſs* and *Comfort* therein.

Panegyric.

PANEGYRIC is a *laudatory Poem* or *Speech*, made before an *Aſſembly* of *People*, and receives various *Epithets* according to the *Subject Matter* and *Deſign:* As *Euchariſtic*, which returns *Thanks*; *Encomiaſtic*, when it is an *Oration* of *Praiſe*; *Paræniticc*, which gives *Inſtruction*, &c.

Palinody.

PALINODY is a *Poem* wherein we accumulate *Praiſes* on a Perſon whom before we had treated with *Aſperſions* and *Reproaches*, and make a ſolemn *Recantation* of our *Prejudices* and *unjuſt Opinions*.

Epicedium.

EPICEDIUM is a *funeral Song*, which was us'd to be ſung at the *Exequies*, or Solemnization of the *funeral Rites* and *Solemnities*, before the Body of the Deceas'd was inhumed. It conſiſted chiefly of the Praiſes of the *Dead Perſon*, on the *Frailty* and *Fickleneſs* of *Life*, the many and *funebrous* Occaſions of Death; our own and others *Grief* thereat; *Excitations* to *Mourning* and *Lamentation*, not only of *Men*, but *inanimate Creatures*; *Conſolations* to the *Friends* and *Relatives* of the Deceas'd, ſetting forth the *Happineſs* of the Dead in being deliver'd from a Life full of *Afflictions* and *lugubrous Accidents*.

Nænia. *NÆNIA* was a Song that was ſung at the *funeral Pile* to the *Pipe* or other *Muſic*, which play'd while the Body was conſuming: herein they *prais'd* the Deceas'd, and ſtirr'd up the People who ſtood by to *Weeping* and *Mourning*.

Epitaph. *EPITAPH* is a ſort of epigrammatic Poem or Speech, which at firſt uſed to be *pronounced* at the *Tomb* of the interr'd Body; but ſince it is taken only for the *Inſcription* on the Tomb, relating the *Name*, *Sex*, *Age*, *State*, *Merits*, *Honours*, *Praiſes* both of Perſon and Mind, the Kind of Death; and calling upon *Paſſengers* and *Spectators* to a ſerious *Reflection* on *Mortality*, and the *lubricous State* of Life they are now in, and themſelves taken from.

Cento. *CENTO* was a kind of Poem made up of ſeveral Sentences and Pieces taken from the Works of others; thus *Auſonius* made an *Epicedium* or *Nuptial Song* out of *Virgil*'s Writings, and the *Hiſtory* of our *Saviour* has been compos'd of *Sentences* taken from *Homer*'s *Poems*.

Echo. *ECHO* is a jocoſe and merry *Epigram*, wherein the Verſes *return* the *Sound* of the *laſt Syllables* of many Words in a different Senſe.



Of

Of CRITICISM.

Of Criticiſm.

CRITICISM, or, as it is otherwiſe call'd, *Critics*, is a Word of *Greek Original*, the Theme whereof ſignifies to *judge* or *cenſure*, or *give one's Opinion* of any Thing; agreeable to which, theſe Words have been appropriated to that *Art*, *Skill* or *Science*, which conſiſts in a *learned*, *exact and curious Examination of the Words*, *Writings*, *and Actions of Men*, *diſtinguiſhing what is good*, *juſt*, *beautiful and praiſeworthy in them*; *and pointing out the Faults*, *Errors*, *Defects*, *and whatever is inconſiſtent with the Rules of true and polite Learning*, *and good Senſe*; *cenſuring each Particular with its proper Character and Epithet*, *and duly expreſſing the Nature thereof.*

Definition thereof.

A *Critic*, then, is one well skill'd in *judging*, *cenſuring* and *characterizing* the *Actions*, *Words* and *Writings* of Men; and capable of diſcovering their more ſecret *Beauties* and *Defects*, which he knows are really ſuch according to the *Nature* of *Things*, which he makes his grand *Criterion*, or Rule of *Judgment*. And ſuch a Perſon, when he exerciſeth his Art, is ſaid to *criticiſe* upon a Man, his Words, or Writings, *&c.*

A Critic, who.

If this Definition of a *Critic* and his Art be well conſidered, it will appear that no *ſmall Stock* of *Abilities* is requiſite to entitle a Man to a juſt Claim to this excellent Character; notwithſtanding ſo many make Pretenſions thereto. Both *Art* and *Nature* muſt conſpire to make a *good Critic*, as well as a *good Poet*. As Mr. *Pope* has excellently well obſerv'd in the following Lines.

Great Abilities requiſite to a Critic.

They both alike from Heav'n derive their Light,
Theſe born to judge, as well as thoſe to write.

A Punſter no Critic.

HENCE we obſerve, that 'tis an equal Abſurdity to pretend to be thought a *Critic* for the ſake of a few low and quibbling Cenſures, Puns, and Witticiſms, upon an Author, as to be eſteem'd a *Poet* for ſcribbling a few dull Lines on any notable Subject. For,

In *Poets* as *true Genius* is but rare,
True Taſte as ſeldom is the *Critic*'s Share.

Good Critics more rare than good Authors.

THE ſame great Perſon begins his *Eſſay on Criticiſm* with an Obſervation of a like Nature;

'Tis hard to ſay if greater want of Skill
Appear in *writing* or in *judging ill*:
But of the two leſs dangerous is th' Offence
To tire our Patience than miſlead our Senſe.
Some *few* in that, but *Numbers* err in this;
Ten cenſure wrong, for *one* who writes amiſs.

Good Authors the beſt Critics.

AGAIN, 'tis reaſonable to imagine that thoſe only are fit to be *Judges* of Authors, and their Writings, who themſelves are capable of compoſing, and *writing well*, and in a *good Taſte*; and therefore the Poet's Admonition is very ſeaſonable;

Let ſuch *teach* others who themſelves *excel*,
And *cenſure* freely who have written well.

The true Critic's Character is an univerſal one.

THAT of a *Critic* is no *partial*, but an *univerſal Character*; for conſidering *Criticiſm* as an Art, though Men may be exceeding good Judges in ſome particular Matters relating to their Buſineſs and Profeſſion, they will never merit the Title of *Critics*, unleſs they are profoundly ſkill'd in the Knowledge of all Things requiſite to qualify them to judge and determine of all Things, ſo far as to diſtinguiſh their Beauties and Perfections, and their Faults and Imperfections, which is the proper Province of the Art of *Criticiſm*: Tho' it muſt be allow'd, that Men may *criticiſe* beſt on ſuch Subjects as are moſt familiar to their Studies, and moſt practiſed by them. 'Tis impoſſible we ſhould be equally capable of judging concerning all Things indifferently; and can only pretend to a *perfect Maſtery* in one Art or Faculty at moſt, and ſometimes we may come ſhort of that: Since One

One Science only will one Genius fit,
So *vaſt* is *Art*, ſo *narrow* human *Wit*;
Not only bounded to peculiar Arts,
But oft in thoſe confin'd to ſingle Parts.

The ſeveral Sources thereof.

In order then to define and eſtabliſh the Character of an *univerſal Critic*, 'tis neceſſary to conſider the conſtituent Parts, and the Sources whence they are derived; theſe are two, *viz. Nature* and *Art*. *Nature* lays the Foundation, and *Art* raiſes thereon and embelliſhes the Superſtructure.

Unerring *Nature* ſtill divinely bright,
One clear unchang'd and univerſal Light,
Life, *Force*, and *Beauty*, muſt to all impart,
At once the *Source*, the *End*, and *Teſt* of *Art*.
Art from that Fund each juſt Supply provides,
Works without Show, and without Pomp preſides.

The Natural Parts of a Critic.

The Parts which Nature furniſhes towards conſtituting a Man a *Critic* are very many; among which we may reckon the following as principal.

Magnanimity, or Greatneſs of Soul.

First, *Magnanimity*, or a *large capacious Mind*, ſometimes call'd a *Greatneſs of Soul*. By this ſpecial Bounty of Nature a Man is capable of receiving and containing a very great Store of *Ideas*, of every Sort from the *nobleſt* to the *meaneſt Claſs*. A *capacious Mind* is the *Storehouſe* of a *Critic*; it is the *Repoſitory* of his Materials of Art, whereby he forms his Judgment from whence his Criticiſms proceed. Here he finds the wondrous Infinity of *Images* and *Portraits* of Natural Objects, drawn with Nature's own unerring Hand in *Miniature*, by which he examines all the Productions and Works of Art, and can ſoon perceive the Relation between them, and point out their Agreement or Incongruity, and therefore can cenſure accordingly.

Great Minds alone can the vaſt World contain,
And ſtore *Ideal Natures* in the Brain.
To them the great Prerogatives belong
To *judge* and *cenſure* what is *right* or *wrong*:

And

And theirs, and not of *little Minds*, the Part
To ſhew from *Nature* what is *juſt* in *Art*.

A free and eaſy Conception

Secondly, A *clear, free and eaſy Conception* of Ideas and their various Natures, Relations and Differences, is the next indiſpenſable Quality in a *Critical Genius*; that is, he muſt have what we generally call a *clear Head*. A large Mind of Ideas, like the *Atmoſphere of Atoms*, had need be very clear and ſerene, that all things therein may be perceiv'd *viſible* and *diſtinct* by the *Mind's Reflection*; elſe *Darkneſs*, *Obſcurity*, and *Confuſion* will perpetually poſſeſs the Mind, and perplex it with inextricable Difficulties in all its Inquiries and Reſearches.

As when thick Miſts or Fogs obſcure the Air
We, loſt in Error, wander here and there,
Fill'd with Anxiety and wild Deſpair,
We ſeek our Way, and often ſeek in vain,
Till *Sol* relucent ſets us right again.

A fine and exquiſite Taſte.

Thirdly, He muſt be poſſeſs'd with that *Principle* which gives him a nice and true Notion of what is *agreeable*, or *diſagreeable*; *pleaſant*, or *unpleaſant*; *beautiful* and *formous*, or *ugly* and *informous*; *plauſible*, or *deſpicable*; with every other *Quality* and its *Oppoſite*, in all his *Ideas* of Things: And this *Principle* we may call the *Standard of Nature*, and is the *grand Criterion* of *univerſal Criticiſm*, and remains invariable and always the ſame. From this *Affection of Nature* it is that we are ſo much more delighted and pleaſed with ſome things than others; that ſome *Ideas* tranſport us almoſt beyond our Senſes, and ſometimes our very Reaſon too, and fill our Souls with *extatic Joys* and *unſpeakable Pleaſures*; that others affect us but *indifferently*, and are neither much *deſireable* nor *deteſtable*; and laſtly, that ſome affect us with very diſagreeable and uneaſy Senſations, and cauſe in us an utter *Abhorrence*, *Deteſtation* and *Averſion* to them. Now, unleſs a Man be truly inſpir'd with this Principle, and can, in virtue thereof, find himſelf nicely affected with all the various Degrees of *Senſation* from the *moſt deteſtable* to the moſt raviſhing which ariſe from

from the Ideas of Things, he will never be able to rise above the Character of a *dull Critic*.

Fourthly, A *natural Wisdom* or *Sagacity* is another Qualification necessary to constitute a *Critic*: By this he is enabled to make a *true Division* of the various Parts of his *Ideas*, which are intended as the Subject of his *Scrutiny* and *Criticisms*; and to make proper Arrangements and Distributions of them, according to their different *Natures*, *Kinds*, and *Species*; otherwise he can never make a *just Comparison* in order to form a *Judgment* concerning them; but must be perpetually puzzled and perplexed amidst his own Blunders, and mistake the *Sense* and *Meaning* of Things. 'Tis this Talent gives a Man a *Logical Head-piece*, without which he must as absurdly aim at the noble Title of a *Critic*, as he endeavours to escape the odious Appellation of a *wretched Blunderer*. *A natural Wisdom and Sagacity.*

'Tis *native Logic* which must form the Mind
Of him who for a *Critic* is design'd;
Without this Faculty in vain he tries
To be thought *Critic*, or to *criticise*;
A diff'rent Fate attends him, for alas!
He's deem'd a *blundering*, *dull*, *ignoble Ass*.

Fifthly, *A good Memory*, *tenacious of Impressions of every kind*, *and form all Sorts of Ideas or Objects*, is another *Essential* in the Composition of a *Critic*. For though Mr. *Pope*'s Observation is often confirm'd by Experience, *A tenacious Memory.*

That, in the Soul while Memory prevails,
The solid Pow'r of Understanding fails;

yet this is not always the Case: Some Men are equally bless'd with *great Memories* and *great Understanding*, and unless it were so we might in vain expect to see or boast of a *finish'd Critic*. 'Tis certain a Man cannot become excellent in any Art or Science without a considerable *Memory*; and 'tis as certain that *Criticism* requires this Talent in the highest Degree of Perfection, human Nature is capable of; the Reason whereof may appear farther on.

Sixthly,

A fine Imagination and ſprightly Fancy.

Sixthly, *A fine Imagination, and ſprightly Fancy*, are neceſſary in a *genuine Critic*. As *Magnanimity* is the *Faculty* of treaſuring up vaſt Stores of *Ideas*, ſo *Imagination* is the Power of viewing, comparing, altering and compounding the *Images* of Objects received in our Minds, into all the Varieties of *Picture* and *Viſion*, that are agreeable or delightful to the *Fancy*. There is abundance of Work for the *imaginative Faculty* in *Criticiſm*: A *Critic* ought to be exceeding apt and ready at forming *Gueſſes*, *Conjectures*, and *plauſible Hypotheſes*: Where the Nature, Coherence, Relation or Reaſon of things are latent and obſcure, there an *ingenious Imagination* aſſiſts much in forming the *Criticiſm*, and a ſprightly *Fancy* ſets it off with a peculiar *Grace* and *Air*. In ſhort, this Power of the Mind will at leaſt exempt him from the *Opprobium* of a *Dullard*; and his Conjecture will be allow'd to be an *artful Hypotheſis*, when it can't be ſuppoſed a *true* or *juſt Criticiſm*. When Mr. *Pope* ſays,

Where Beams of *warm Imagination* play,
The Memory's ſoft Figures melt away;

he is to be underſtood of *People in common*, particular Caſes excepted; for what are *great Genius's*, as *Virgil*, *Milton*, *Newton*, *Locke*, *Addiſon*, and Mr. *Pope* himſelf, but *Exceptions* to the *general Model* and *Standard of human Nature*? The *Faculty* of *Fiction* is almoſt as neceſſary in a *Critic* as in a *Poet*; the latter being in a great meaſure the Subject of the other's Art.

For gen'rous *Critics* fan the Poet's Fire,
And teach the World with Reaſon to admire.

An Happineſs of Diction.

Seventhly, 'Tis requiſite a *Critic* ſhould have the Happineſs of a *free*, *clear and eaſy Diction*. The *manner of Expreſſion* is a Matter of great Importance in *Criticiſm*. We are beholden to this Art for the good Offices it does us in explaining and diſcovering to us the concealed and recluſe Beauties and Perfections of an Author's Performance, *&c.* but if this be undertaken in an *uncouth*, *confuſed* and *obſcure Language*,

Language, we, inſtead of being *inſtructed*, are but *doubly perplex'd and confounded*, and therefore little obliged to ſuch *Criticiſms*. Not that a *Critic* ſhould be *verboſe*; for

Words are like Leaves, and where they moſt [abound
Much *Fruit of Senſe* beneath is rarely found.

But his Expreſſion ſhould be conciſe as well as clear; genuine, not foreign to the Matter; and fertile with Ideas, ſententious and pregnant with Senſe; and ever preſented with a ſerious and inſtructive Air.

Thus true Expreſſion, like the radiant Sun,
Clears and improves whate'er it ſhines upon;
It gilds all Objects, but it alters none.
Expreſſion is the Dreſs of Thought, and ſtill
Appears more decent, as more ſuitable.
In *Words*, as *Faſhions*, the ſame Rule will hold,
Alike *fantaſtic*, if *too new*, or *old*.

Mr. *Pope*.

THESE are the principal Qualifications requiſite to conſtitute a *critical Genius*. If a Man be thus endowed by Nature, I think 'tis plain he is thereby render'd capable of a *good Underſtanding*, a *great Share* of *Learning*, and conſequently of becoming a Man of *Genius*, *fine Taſte*, *Sublimity of Thought*, and *Solidity* and *Profundity of Judgment*; all which together compleat the Character of a *Critic*.

The moral Qualities of a Critic.

BUT next to theſe *Natural Qualities*, there are certain *Moral Diſpoſitions*, which make a Man ſomewhat more than a *mere Critic*, and that is, a *juſt and good Critic*.

Learn then what Morals Critics ought to ſhow,
For 'tis but half a Judge's Taſk to *know*.
'Tis not enough *Wit*, *Art*, and *Learning* join;
In all you ſpeak let *Truth* and *Candour* ſhine:
Without *good Breeding* Truth is diſapprov'd;
That only makes ſuperior Senſe belov'd.

Mr. *Pope*.

TRUTH

Truth and Honeſty.

TRUTH and *Honeſty* are the primary Excellencies in a *Critic*; for he to whom the Liberty is indulged of dealing with Men's *Character*, *Reputation* and *Merit*, ought above all others to be ſuppoſed to have the ſtricteſt and moſt ſacred Regard to thoſe Principles, which are the eternal Rules of doing Juſtice in the way of *Judgment* and *Cenſure*. What wretched and deteſtable *Murderers* of Men's *Names* and *Fame* are thoſe, who, in their *Criticiſms*, ſhall, for the ſake of any Influence whatever, take the horrid Liberty of departing from the *ſacred Laws of Truth*, and violate the *Ties* of *Honour* and *Honeſty!*

Good Critics ſcorn *Deceit*, and hate a *Lie*;
They'll dare to *ſpeak the Truth*, though for't to [*dye.*

'Tis not the *low Condition*, the *Applauſe* of another, the Debaſement of one's ſelf, the *Favour* of the *Honourable*, or the *Frowns* of the *Powerful*, which can hinder an *honeſt Critic*, from ſpeaking freely what he thinks is *Truth*.

Candour and Ingenuity.

CANDOUR is the next *moral Perfection* in a *Critic* of Worth. This indeed is always a *Concomitant* of *Truth* and *Honour*, but yet is very different from them; for a Man, though he does not falſify the Truth, may be *diſingenuous*, and conceal it, and prove *partial* to *Merit*; which Faults are entirely prevented in a *Critic* of a *candid Mind*. A *Critic* who deals *ingenuouſly* with an Author, will be as careful to *diſcover* and recommend the *Wit* and *beautiful Paſſages* in any Performance, as to detect and expoſe the *Faults* and *Imperfections* thereof; the former he doth with Pleaſure, the latter with *Regret*.

A *Candid Judge* will read each Work of Wit
With the ſame Spirit that its Author writ;
Survey the whole, nor ſeek *ſlight Faults* to find
Where *Nature* moves and *Rapture* warms the [Mind;
Nor loſe, for that malignant dull Delight,
The gen'rous Pleaſure to be charm'd with Wit.

GOOD-NATURE is next among the amiable Morals of a *Critic*; 'tis this excellent Quality which tempers all his *Criticiſms* with a *ſweet* and *generous Grace* and *Air*. A kind, benevolent and good-natur'd *Criticiſm*, though it be deſign'd to remark upon our Faults, is nevertheleſs agreeable and engaging; and gives us Grounds to think at the ſame time, the *Critic* hath a good Opinion of us, and would take a ſuperior Pleaſure in *criticiſing* in our Favour. A *benevolent Critic* knows, *Good-Nature.*

Whoever thinks a faultleſs Piece to ſee,
Thinks what ne'er was, nor is, nor e'er ſhall be.

SUCH a *Critic* always conſiders the Scope and End of the Author; and thinks it but reaſonable to make allowance for *human Nature* and *Frailties*. He readily grants,

That if the Means be juſt, the Conduct true,
Applauſe, in ſpight of trivial Faults, is due.

He knows moreover, that

In Wit, as Nature, what affects our Hearts
Is not th'Exactneſs of peculiar Parts;
'Tis not a *Lip*, or *Eye*, we Beauty call,
But the *joint Force* and *full Reſult* of all.

Longinus obſerves, that the Productions of a *great Genius*, with many *Lapſes* and *Inadvertencies*, are infinitely preferable to the Works of an inferior Author, who is ſcrupulouſly exact, and conformable to all the Rules of correct Writing. *An Obſervation of* Longinus.

Such even Wits, as neither *ebb* nor *flow*,
Correctly cold, and regularly low,
That ſhunning Faults one quiet Tenor keep,
We cannot *blame* indeed—but we may *ſleep*.

Mr. *Pope* further obſerves to this Purpoſe; *Of Critical Licence.*

Some Beauties yet no Precepts can declare,
For there's a *Happineſs*, as well as *Care*;
And nameleſs Graces which no Methods teach,
And which a *Maſter-Hand* alone can reach.

Great

Great Wits ſometimes may glorioufly offend,
And riſe to Faults true Critics dare not mend,
From vulgar Bounds with brave Diſorder part,
And *ſnatch a Grace* beyond the Reach of Art.

If then Nature has liberally endowed a Man with the fore-mention'd great Capacities and Talents, and he be at the ſame time a Man of *Truth* and *Honour*, *Candour* and *Good-nature*, there remains only one great Qualification more, to eſtabliſh him a competent Judge of Men and Things; and that is *univerſal Learning*.

The Qualifications of a Critic ariſing from Art.

ART therefore puts the finiſhing Hand to a *Critic*. Mr. *Addiſon* obſerves—There is nothing more abſurd than for a Man to ſet up for a *Critic* without a *good Inſight into all the Parts of Learning*. He muſt have a *Literary Genius*, and true Reliſh for all *polite and learned Sciences:* Nor is this ſufficient yet; he muſt acquire a tolerable Knowledge and Acquaintance even with the Myſteries of *Mechanical* and *Manual Arts* and *Trades*, with the *Phraſeology* and manner of *Operation* in each. In the *Critic* we expect to find, not only great Endowments of Nature, but the moſt ample Accompliſhments of Arts, and univerſal Knowledge. The Buſineſs of a *Taylor*, *Cobler* or *Tinker*, may ſometimes afford Matter or Occaſion to exerciſe the Talent of a *Critic* as notably as the *ſublimer Speculations* of the *Grammarian*, *Geometrician*, *Theologiſt*, or *Philoſopher*. But above all things a Perſon ought to have a perfect *Maſtery of Language*; not only the *Oriental*, as *Hebrew*, *Chaldee*, *Arabic*, *Æthiopic*, &c. but the *Weſtern*, as the *Latin*, *Italian*, *Spaniſh* and *French*, together with the *Greek* in all its Dialects; and alſo the *Northern Languages*, as the ancient *Gothic*, *Saxon*, *Franc*, *German*, *Dutch* or *Teutonic*, *Daniſh*, &c. Becauſe without theſe he can never be ſo good a Judge of *Philological Literature* in all its Branches, which is the moſt uſual Subject of *Criticiſm*; nor yet of his *native Language*, which is derived from many of them; the peculiar *Beauties*, *Force*, and *Propriety* of which ought to be moſt illuſtriouſly diſplay'd in a *Critic*.

Literary Genius.

Mathematical and Mechanical Knowledge

All kind of Philological Learning.

Eſpecially Grammar and Languages.

HAVING thus ſhew'd that all the *Forces* of *Nature* and *Art* muſt join to finiſh a *Critic*, and alſo what

moral

moral Qualities are requiſite to denominate him a *good one*, I ſhall next briefly point out the Characters of a *bad Critic* in ſome notable Particulars. For in this, as well as in all other Arts, there are very bad Performers.

If *Mævius* ſcribble in *Apollo*'s Spight,
There are who *judge* ſtill *worſe* than he can *write*.
POPE.

THE firſt *Characteriſtic* of a bad *Critic* is *Want of Genius*, and a Mind peculiarly form'd for ſuch *Speculations*. On this Account many *monſtrous* and *miſſhapen Productions* have had a Birth in this Province of the *Republic of Letters*. Againſt theſe Mr. *Pope* points his *Satyre*. *The Characteriſtics of a bad Critic, Want of Genius.*

Some have at firſt for *Wits*, then *Poets* paſt,
Turn'd *Critics* next, and prov'd plain Fools at laſt.
Some neither can for *Wits* nor *Critics* paſs,
As heavy *Mules* are neither *Horſe* nor *Aſs*.
Thoſe *half-learn'd Witlings* numerous in our Iſle,
As *half-form'd Inſects* on the Banks of *Nile*,
Unfiniſh'd Things, one knows not what to call,
Their Generation's ſo *equivocal*.

ILL-NATURE is the worſt of all the bad Qualities of a *Critic*: They who attempt to *criticiſe* with this unhappy Diſpoſition, prove more formidable and cruel than the *Popiſh Inquiſitors*; they ſeize upon the miſerable Author's *Fame* and *Merit*, and torture him without *Remorſe*. As it is impoſſible they ſhould have a good Opinion of another Man's Performance, ſo little *Good-Nature*, *Ingenuity*, or *Forgiveneſs* is to be expected from them. They never fail of meeting with hard Quarters, who wretchedly fall under the ſevere Laſhes of their malignant Tongues or Pens? But as the chief End of thoſe enormous Productions of Nature is to delight themſelves in ſporting with, and endeavouring to deſtroy the *Character* and *Eſteem* of Men eminent for *Virtue* and *Wiſdom*, ſo they never fail of rendering themſelves *odious* and *deteſtable* to all conſiderate and judicious Men; and as ſuch I leave them. *Ill-Nature.*

Pride.

PRIDE, next to *Ill-Nature*, is a Quality the moſt to be condemn'd in a *Critic*. Concerning the *proud Cenſurer*, hear the excellent Poet Mr. *Pope*.

Of all the Cauſes which conſpire to blind
Man's erring Judgment and miſguide the Mind,
What the weak Head with ſtrongeſt Biaſs rules
Is *Pride*, the never-failing Vice of Fools.
Whatever Nature has in *Worth* deny'd,
She gives in large Recruits of needful Pride.
For as in Bodies, thus in Souls, we find
What wants in Blood and Spirits, ſwell'd with [Wind:
Pride, where *Wit* fails, ſteps in to their Defence,
And fills up all the *mighty Void of Senſe!*
Thus where *right Reaſon* drives that Cloud away,
There *beamy Truth* ſhines with reſiſtleſs Day.

Caprice and Affectation.

THE *Capricious* and *Affected Critic*, who can reliſh only ſome particular Things, and rejects the Whole for want of theſe, makes the next Claſs of bad Judges. Some affect to make their *Criterion*, a fine Conceit, a glittering Thought, or Point of Wit; others judge a Performance by the Language, Style and Phraſe, not attending to the Senſe and Juſtneſs of the Ideas and their Connections. Again, ſome admire none but *foreign*, others none but *antient*, and others none but *modern* Productions. *Laſtly*, The Affectation of ſome is ſo wonderfully contrary to that of others, that ſome are to be found who can praiſe nothing, but what every body praiſes; while others take as much Care to be ſingular, and will rather *judge wrong* by themſelves, than *right* with the Multitude. But thoſe who judge things *right* or *wrong* according as the Author is of their Opinion or Party, or on the contrary ſide, I do not dignify ſo much as with the Name of *bad Critics*, but rather that of *bigotted* or *prejudiced Coxcombs*.

Pedantry.

IN the laſt Place, the *Pedantic Critic* we find in the Rear of this Tribe. A *Smatterer* in *Learning* may ſerve to make a *Criticaſter*, as well as one in *Verſe* a *Poetaſter*; but both are alike diſhonourable to the Science. For *Critics*, like *Poetry*, is an Art which can admit no Mean between *very good*, and *very*

very bad; that is, a *Hypercritic* and a *Criticaſter*. 'Tis eaſy for Perſons to have Learning enough to deſerve the latter *Epithet*, but 'tis with much more Difficulty they merit the former. In ſhort, a *Pittance of Learning*, as it is often moſt hurtful to Religion, ſo it always is to *Critics*; in puffing the Mind up with Vanity and Conceit, and a Preſumption which generally ſpends itſelf in *Ridicule*, *Contempt*, and *ungenerous Reflections* on Men of Merit and ſolid Judgment and Learning. To this Purpoſe the before-mention'd celebrated Poet ſings:

A *little Learning* is a dang'rous thing;
Drink deep, or taſte not the *Pierian* Spring:
There ſhallow Draughts intoxicate the Brain,
And drinking largely ſobers us again.
Fir'd at firſt Sight with what the Muſe imparts,
In fearleſs Youth we tempt the Heights of Arts;
While from the bounded Level of our Minds
Short Views we take, nor ſee the Lengths behind,
But more advanc'd behold with ſtrange Surprize
New diſtant Scenes of endleſs Science riſe!

Rules and general Inſtructions for Critics by Mr. Pope.

HAVING thus particularized the Character of a *Good and Bad Critic*, it may be proper next to ſubjoin the excellent Advice and Inſtruction which Mr. *Pope* gives to thoſe who engage in Works of *Criticiſm* and *Cenſure*.

—But you who ſeek to give and merit Fame,
And juſtly bear a *Critic*'s noble Name,
Be ſure yourſelf and your own Reach to know,
How far your *Genius*, *Taſte*, and Learning go;
Launch not beyond your Depth; but be diſcreet,
And *mark that Point where Senſe and Dullneſs meet*.
Nature to all Things fix'd the Limits fit,
And wiſely curb'd proud Man's pretending Wit.
Firſt *follow Nature*, and your Judgment frame
By her juſt Standard, which is ſtill the ſame.
Truſt not yourſelf, but your Defects to know
Make uſe of ev'ry *Friend*——and ev'ry *Foe*.
Be not the *firſt* by whom *new Terms* are try'd,
Not yet the *laſt* to lay the *old* aſide.

Avoid Extremes, and ſhun the Faults of ſuch
Who ſtill are pleas'd *too little* or *too much*.
At *ev'ry Trifle* ſcorn to take Offence;
That always ſhows *great Pride* or *little Senſe*.
Thoſe *Heads*, as *Stomachs*, ſure are not the beſt
Which nauſeate all, and nothing can digeſt:
Yet let not each *gay Turn* thy Rapture move;
For *Fools admire*, but Men of Senſe approve.
Regard it not, if *Wit* be *old* or *new*;
But blame the *falſe*, and value ſtill the *true*.
Nor for the ſake of *Imitation* err;
Nor chuſe, for *Learning*, to be ſingular.
Think not your Reputation ſafe, becauſe
Or Fools admire, or Vulgar give Applauſe.
Be thou the firſt true Merit to befriend;
His Praiſe is loſt, who ſtays till all commend.
Of old thoſe met Rewards who could excel,
And ſuch were *prais'd who but endeavour'd well.*
To what baſe Ends, and by what abject Ways,
Are Mortals urg'd through ſacred Luſt of Praiſe!
Ah ne'er ſo dire a *Thirſt of Glory* boaſt,
Nor in the *Critic* let the *Man* be loſt.
Let *Vice* and the *Prophane* your *Darts* engage;
There point your Thunder, and exhauſt your Rage.
Yet ſhun their Fault, who ſcandalouſly nice,
Will needs miſtake an Author into Vice.
All ſeems infected that th' Infected ſpy,
As all looks yellow to the jaundic'd Eye.
Be ſilent always when you doubt your Senſe,
And ſpeak, tho' ſure, with ſeeming Diffidence.
Some poſitive, perſiſting Fops we know,
That, if once wrong, will needs be always ſo;
But you with Pleaſure own your Errors paſt,
And make each Day a *Critic* on the laſt.
'Tis not enough your Counſel ſhould be true,
Blunt Truths more Miſchiefs than nice Falſhoods do.
Men muſt be taught as if you taught them not,
And *things unknown* propos'd as *things forgot*.
Be Niggards of Advice on no Pretence,
For the worſt *Avarice is that of Senſe*.
With mean Complacence ne'er betray your Truſt,
Nor be ſo civil as to prove unjuſt.
Fear not the Anger of the Wiſe to raiſe;
Thoſe beſt can bear Reproof who merit Praiſe.

Fear

Fear moſt to tax an honourable Fool,
Whoſe Right it is *uncenſur'd to be dull.*
'Tis beſt ſometimes your Cenſure to reſtrain,
And charitably let the *Dull* be *Vain.*
Your Silence there is better than your Spight,
For who can rail ſo long as they can write?
Of Cenſure careleſs be, nor fond of Fame,
Still pleas'd to praiſe, yet not afraid to blame;
Averſe alike to flatter, or offend,
And, as not faultleſs, not too vain to mend.
But where's the Man, who Counſel can beſtow,
Still pleas'd to teach, and yet not proud to know;
Unbiaſs'd or by Favour or by Spight;
Not dully prepoſſeſs'd, or blindly right;
Tho' learn'd, well-bred; and tho' well-bred, ſincere;
Modeſtly bold, and humanly ſevere?
Who to a Friend his Faults can freely ſhow,
And gladly praiſe the Merit of a Foe;
Bleſt with a Taſte exact, yet unconfin'd,
A Knowledge both of Books and human Kind;
Gen'rous Converſe; a Soul exempt from Pride;
And Love to Praiſe, with Reaſon on his Side?

Of GEOGRAPHY; *Or, The* DESCRIPTION *of the* GLOBE *of* LAND *and* WATER.

Geography defined.

GEOGRAPHY is a Deſcription of the Surface of the *Earth*, or *terraqueous Globe*, and all its Parts; and may be divided into two great Parts, *viz.* (1.) *Geography* properly ſo call'd, as it denotes barely a Deſcription of the *Land*, or *terreſtrial* Part of the Surface of the Globe. (2.) *Hydrography*, which contains a Deſcription of the *Waters*, or *aqueous* Part of the Earth's Surface.

Its Diviſion into Geography properly ſo call'd and Hydrography.

Proper or ſpecial Geography divided into Chorography and Topography.

Proper or *ſpecial Geography* is again divided into (1.) *Chorography*, which is a Deſcription of particular Countries, as *Great-Britain*, *France*, &c. (2.) *Topography*, which is a Deſcription of particular Places. *Geography* may again be divided into (1.) The *Phyſical Part*, which treats of the *Nature* and *Qualities* of the ſeveral Parts of the Earth and its Appennages; as the *Figure*, *Magnitude*, &c. of the Earth itſelf; of *Mountains*, *Seas*, *Rivers*, &c. of *Beaſts*, *Birds*, and *Fiſhes*, &c. (2.) The *civil* or *political Part*, which treats of *Cities*, *Towns*, *Societies*, *Laws*, *Language*, *Learning* and *Cuſtoms*, of the ſeveral Peoples and Nations of the Earth.

The Principles of Geography.

THE Principles on which the Science of *Geography* depends, are of three ſorts, *viz.* (1.) Propoſitions of *Geometry*, *Arithmetic* and *Trigonometry*. (2.) *Aſtronomical* Precepts and Theorems. (3.) *Experience*; for the greateſt Part of *Geography* is the Reſult of the Obſervations and Experience of thoſe who have travell'd and deſcrib'd the ſeveral Countries.

SINCE

SINCE the Globe or Body of Earth on which we live, is the immediate Subject of this curious and most uſeful Science, I ſhall firſt conſider the more *general* and *abſolute Affections* thereof, and then thoſe which are more *particular*. Of the firſt Kind are (1.) The Figure or Form. (2.) The Magnitude or Dimenſions thereof. (3.) The Motion of the Earth. (4.) The Situation thereof in reſpect of the other Parts of the Univerſe. (5.) The conſtituent Parts or Subſtance of the Earth. Of all which in their Order. *Of the general Affections of the Earth.*

As to the *Figure* of the *Earth*, the Antients had different and very odd and abſurd Opinions of it. Some thought it was *plain*; others, that it was *concave*; and again ſome, that it was *quadrangular*; and others, that it was *oblong*, or in Form of a *Parallelogram*. *Crates* reſembled it to a *Semicircle*; *Hipparchus* to a *round Table*; *Poſidonius* to the Form of a *Sling*; *Leucippus* to the Form of a *Drum*; and others form'd other vulgar and rude Conceptions, and made wretched and ſenſeleſs Compariſons concerning it; all which were in Time confuted, as the World grew wiſer. When and where Mathematical Knowledge came to be underſtood, *Philoſophy* (which without it is generally the moſt awkward Nonſenſe) ſoon convinc'd Men that the Figure of the Earth was that of a *round Ball* or *Globe*; and this Opinion was ſufficiently eſtabliſh'd and even demonſtrated by many of the *Antients*, as *Pythagoras*, *Ariſtotle*, *Archimedes* and others; and indeed common Experience and Knowledge of *Travellers*, *Navigators*, and *Aſtronomers* does ſo invincibly atteſt the *Truth of the Roundneſs* of the Earth by many infallible Obſervations and Arguments, that it can never more be doubted of. But tho' the Earth, as to the *general Idea*, be of a *round* or *ſpherical Form*, yet the *Modern* or *Newtonian* Philoſophy (which refines on all others) hath actually demonſtrated that it is not exactly *round*, but *ſpheroidical*, or that of an *oblate Sphere* or *Spheroid*: And that the Diameter of the *Equator*, or from *Eaſt* and *Weſt*, is greater than that of the *Poles*, or from *North* to *South*, by about 34 Miles, the Proportion to each other being as 692 to 689. *Of the Figure of the Earth. The odd Notions of the Antients about it.* *The true Figure of the Earth is Roundneſs or Sphericity.* *Or rather that of a prolate Sphere, or Spheroid.*

THE Magnitude of the Earth is eaſily attainable many Ways, as I have ſhew'd in my *Young Trigonometer's* *Of the Magnitude of the Earth.*

meter's Guide. For ſince it is known to be round, and that one Degree of a great Circle thereof contains 69 and a half of our Statute Miles, 'tis evident the Circumference of the Earth will be 25020 Miles; and therefore the Diameter or Thickneſs of the Earth is 7964 Miles; the Surface will contain 199250205 Square Miles, and the ſolid Content of the Earth will be 264466789170 Cubic Miles.

Of the Motion of the Earth about the Sun.

THE Motion of the Earth about the Sun hath been long aſſerted by the *Learned*, and denied by the *Ignorant* and the *Enthuſiaſt*, who never fail to oppugn what they don't underſtand. In the dark Ages of Antiquity *Pythagoras* was the firſt who diſcern'd and maintain'd it; which was again loſt, with all other valuable Learning, for many Ages, till retriev'd by *Copernicus*, *Galileo*, *&c.* and is now demonſtrated beyond all Exception to equal Judges of the Matter. For ſince it is ſufficiently proved, *That the Squares of the Periodical Times are proportional to the Cubes of the Diſtances from the Centers of the Orbits, about which the Planets, both primary and ſecondary, perform their reſpective Motions*; and that this Law obtains in all the circulating Bodies of the Univerſe: 'Tis evident the Sun would obſerve it alſo, did it really move round the Earth, as it appears to do in 365 Days: But that it does not, obſerve it is plain; for the Moon moves about the Earth in 27 Days, and is 60 Semidiameters of the Earth diſtant from us. Now the Square of 27 is 729, and of 365 is 133225; alſo the Cube of 60 is 216000; therefore ſay, As 729 : 133225 :: 216000 : 39460356, the Cube Root of which is 340 nearly, which therefore ſhould be the Diſtance of the Sun in Semidiameters of the Earth: But 'tis well known the real Diſtance of the Sun is above 2000 Semidiameters; according to which it could not turn round the Earth in leſs than 5196 Years, if it obſerved the ſame general Law which all the reſt of the heavenly Bodies do. Conſequently the Earth moves round the Sun, and not the Sun round it. This is called the *Annual* or *Yearly Motion* of the Earth: Beſides which, at the ſame time, it revolves about its own Axis once in 24 Hours, which is call'd the *Diurnal Motion*, and is the Cauſe of *Day* and *Night*, as the other is, in part, of the *Seaſons* of the Year: All which

A Proof the Sun does not move round the Earth.

The Annual and Diurnal Motion of the Earth.

which you have largely illuſtrated in my *Philoſophical Grammar*.

SINCE then the Earth is a Body moving round the Sun as its Centery it muſt be eſteem'd a *Planet* as well as *Mercury*, *Venus*, *Mars*, &c. are for the very ſame Reaſon; and with reſpect to them obtains its Place the third from the Sun or Center, having *Mercury* and *Venus* below its Orb, and *Mars*, *Jupiter*, and *Saturn* above it. *The Earth, as a Planet, is ſituate in the third Orb from the Sun.*

THE internal Subſtance or Conſtitution of the Earth is entirely unknown to us at all Depths below the Surface. Some think the central Parts are poſſeſs'd by *Fire*, others ſay by *Water*, but others there place an *immenſe Loadſtone*, from which thoſe leſſer *Magnets* we uſe derive their Virtue and wonderful Properties, as being Parts thereof, and acting in a perfect Conformity to its Nature. But theſe Things are uncertain. However, certain it is that the outward *Shell* or *Cruſt* of the Earth is compoſed of divers heterogeneous Subſtances, of different Gravities, diſpoſed, for the moſt part, in the Form of Beds, called *Strata*, or *Layers* of *Earth*, *Loam*, *Clay*, *Chalk*, *Stones*, *Sand*, *Mineral* and *Metallic Ores*, *Sulphur*, *Salts*, &c. variouſly intermix'd together, as appears from the digging of a Well at *Amſterdam* 232 Feet deep, where the Veins of the Earth, &c. appear'd as follows: *Of the internal Subſtance of the Earth.* *Various Beds, or Layers of Moulds and Earth, compoſe the outward Shell.*

Feet.		Feet.
Garden Mould — 7	White Loam — 4	
Of Turf or Peat — 9	Of dry Earth — 5	
Of ſoft Clay — 9	Of muddy Earth — 1	
Of Sand — 8	Of Sand — 14	
Of Earth — 4	Of Sandy Clay — 3	
Of Clay — 10	Sand mix'd with Clay — 5	
Of Earth — 4	Sea-Sand with Shells — 4	
Of Paving Sand — 10	Clay — 102	
Of Clay — 2	Loam — 31	

An Example thereof.

Such is the Make of the outward Part of the Earth, which yet is very different in different Places. I now proceed to the two great Parts of *Geography* before-mention'd; and firſt of

SPECIAL GEOGRAPHY, which treats of the *terreſtrial* Part of the Earth's Surface, or that we *The Subject of Special Geo-*

graphy divided into Continents. we call *Land*. This admits of the following Diviſions, *viz.* (1.) *Continents*; which are large and ſpacious Tracts of Land, comprehending divers Countries, Kingdoms, and States, all contiguous to each other, and uninterrupted by Seas or Water. Of theſe there are four, *viz. Europe*, *Aſia*, *Africa* and *America*.

Iſlands. (2.) *Iſlands*; which are Parts of Land entirely encompaſs'd with Water; ſuch as *Great-Britain*, *Ireland*, &c.

Peninſula's. (3.) *Peninſula's*; which are Parts of dry Land every where encloſed with Water, ſave one narrow Neck by which it is join'd to the Continent.

Iſthmus's. (4.) *Iſthmus's* are thoſe Necks of Land which join the Peninſula's to the main Land, and by which People paſs from one into the other.

Promontories. (5.) *Promontories*, which are high Parts of Land ſtretching out in the Sea, the Extremities whereof are call'd *Capes* or *Head-Lands*.

Mountains. (6.) *Mountains*; theſe are riſing Parts of dry Land, well known to all without farther Deſcription.

The Waters divided into Oceans. *HYDROGRAPHY*, which treats of the watry Parts of the Earth's Surface, divides its Subject as follows, *viz.* (1.) *Oceans*; which are thoſe mighty Collections of Water that cover the greateſt Spaces of the Earth's Superficies, and flow around the Continents.

Seas. (2.) *Seas*; theſe are ſmaller Collections of Water, which are entirely, or for the greateſt Part, ſurrounded by Land.

Gulphs. (3.) *Gulphs*; which are thoſe Parts of the Sea that run up into the main Land, and are therewith environ'd, except one Paſſage whereby it communicates with the open Sea or Ocean.

Streights. (4.) *Streights*; which are thoſe narrow Paſſages either joining a Gulph to a Sea, or one Part of a Sea or Ocean to another.

Rivers. (5.) *Rivers*; which are Streams of freſh Water iſſuing from Fountains, and gliding in large Chanels through the Countries to the Sea or Ocean, where they diſembogue themſelves.

Lakes. (6.) *Lakes* are thoſe ſmall Collections of deep ſtanding Water, entirely ſurrounded by Land, and having no viſible Communication with the Sea.

The Definition of certain Precognita, viz. BEFORE we proceed to treat of the ſeveral Parts of Land and Water above-mentioned, it will be neceſſary to explain the following *Precognita* of the Science.

The Axis of the Globe. (1.) The *Axis* of the Globe is an imaginary Line paſſing through the Center thereof, about which the Globe is ſuppoſed to turn.

The Poles. (2.) The *Poles* of the Earth

Earth or Globe are the two Extremities of the Axis, one whereof is call'd the *North* or *Arctic Pole*, and the other the *South* or *Antarctic Pole*. (3.) The *Horizon* is that great Circle which bounds our Sight, and divides the Globe into the viſible and inviſible Hemiſpheres. (4.) The *Equator* is that great Circle which divides the Globe into two equal Parts, call'd the *Northern* and *Southern Hemiſpheres*. (5.) The *Meridian* is a great Circle paſſing thro' the two Poles, and divides the Globe equally into the *Eaſtern* and *Weſtern Hemiſpheres*. (6.) Every great Circle of the Globe is ſuppoſed to be divided into 360 equal Parts, which are called *Degrees*; and every Degree is divided into 60 other equal Parts, call'd *Minutes*. (7.) The *Ecliptic* is a great Circle repreſenting the Sun's *annual Path*, and is inclined to the *Equator* in an Angle of 23 Degrees and 30 Minutes, both Northward and Southward. (8.) The *Tropics* are two leſſer Circles which run parallel to the *Equator*, and touch the *Ecliptic* on each Side; that on the *North* is call'd the *Tropic* of *Cancer*, and the other on the *South* the *Tropic* of *Capricorn*. (9.) The *Polar Circles* alſo run parallel to the *Equator*, and at the ſame Diſtance from the *Poles*, as the *Tropics* are from the *Equator*, viz. 23 Degrees and a half. That Circle on the *North* is call'd the *Arctic Circle*, and the other on the *South* the *Antarctic Circle*. (10.) *Latitude* is the Diſtance in Degrees from the *Equator* towards either of the Poles, and meaſur'd upon the Meridian to the *North* or *South*; whence ariſeth *North* or *South Latitude*. (11.) *Parallels of Latitude* are leſſer Circles parallel to the *Equator* and each other, and are drawn thro' every 5 or 10 Degrees of Latitude *North* and *South*. (12.) *Longitude* is the Diſtance in Degrees from the firſt Meridian, and meaſur'd on the *Equator* from *Weſt* to *Eaſt*. (13.) *Zones* are large Tracts of the Earth's Surface, lying parallel to the *Equator*, and encompaſſing the Globe like broad *Belts*; whence their Name. Of theſe there are three Kinds, *viz.* the *Torrid*, *Temperate*, and *Frigid Zones*. The *Torrid Zone* is one, and lieth between the two *Tropics*, and is divided by the *Equator*; it hath its Name from the Sun's going perpendicularly over it, and *ſcorching* or *terrifying* it with its Heat. The *Temperate Zones* are two, one on each

The Horizon. *The Equator.* *The Meridian.* *Degrees.* *The Ecliptic.* *The Tropics.* *Polar Circles.* *Latitude.* *Parallels of Latitude.* *Longitude.* *Zones.* *Torrid Zones.* *Temperate Zones.*

each Side the *Equator*, being included between the *Tropics* and *Polar Circles*. In these the Sun's Heat and the Seasons are *temperate*. The *Frigid* or *Frozen Zones* are two also, the *North* and the *South*; they lie between the *Polar Circles* and the *Poles*, and encompass the Poles all around. In them the Seasons have the greatest Extremity of *Cold*, whence their Name. (14.) *Climates* are those Tracts of the Earth's Surface which run parallel to the *Equator*, and of such a Breadth from *North* to *South*, that the Length of the artificial Day in one surpasseth that in the next by *Half an Hour*. Of these *Climates* there are 24 on each Side the *Equator*, which reach to the *Polar Circles*; after which the *Climates* are reckon'd from the Difference of an *entire Month*, and are in Number *Six*; the Sun being seen in the first one whole Month without setting; in the second, two Months; in the third, three; and so on, as you see in the following Table,

Frigid Zones.

Climates.

Number of Climates.

A TABLE *ſhewing the Parallel of Latitude, the Breadth, and the Length of Day in every Climate.*

Climates.	Pa. of Lat.		Breadth		Day.		Climates.	Pa. of Lat.		Breadth.		Day.	
	Climates between the Equator and Polar Circles.												
	D.	M.	D.	M.	H.	M.		D.	M.	D.	M.	H.	M.
1	8	34	8	34	12	30	13	59	59	1	33	18	30
2	16	43	8	09	13	00	14	61	18	1	19	19	00
3	24	11	7	28	13	30	15	62	25	1	07	19	30
4	30	47	6	36	14	00	16	63	23	0	58	20	00
5	36	30	5	43	14	30	17	64	16	0	53	20	30
6	41	22	4	52	15	00	18	64	55	0	39	21	00
7	45	29	4	07	15	30	19	65	25	0	30	21	30
8	49	01	3	32	16	00	20	65	47	0	22	22	00
9	51	58	2	57	16	30	21	66	06	0	19	22	30
10	54	29	2	31	17	00	22	66	20	0	14	23	00
11	56	37	2	12	17	30	23	66	28	0	08	23	30
12	58	26	1	49	18	00	24	66	31	0	03	24	00
	Climates between the Polar Circles and the Poles.												
1	67	31	1	00	1	Mont.	4	78	20	5	00	4	Mont.
2	69	31	2	00	2	Mont.	5	84	00	5	40	5	Mont.
3	73	21	3	50	3	Mont.	6	90	00	6	00	6	Mont.

Of the various Denominations of the Inhabitants of the Globe.

THE Inhabitants of the Earth are variouſly denominated. Firſt, according to the ſeveral *Meridians* and *Parallels* under which they live, they are call'd *Antœci*, *Periœci*, and *Antipodes*. Secondly, according to the Diverſity of their Shadows they are term'd *Amphiſcii*, *Periſcii*, and *Heteroſcii*, of which take the following Account.

The Antœci.

THE *ANTOECI* are thoſe People which live under the ſame *Meridian*, but oppoſite Parallels. They have (1.) the ſame *Elevation* of the *Pole*, but not the *ſame Pole*. (2.) They are equally diſtant from the *Equator*, but on different Sides. (3.) They have both *Noon* and *Midnight* at the ſame Time. (4.) The *Days* of the one are *equal* to the *Nights* of the other, and *vice verſâ*. (5.) Their *Seaſons* of the Year

Year are *contrary*, it being *Winter* to one when *Summer* to the other.

The Periæci. THE *PERIOECI* are thoſe who live under the *ſame Parallels*, but *different Meridians*. They have theſe Peculiarities: (1.) The *ſame Pole* is equally elevated or depreſs'd to both. (2.) They are equally diſtant from the Equator on the ſame Side. (3.) When it is *Noon* to one, it is *Midnight* to the other. (4.) The *Days* of one are the *Complements* of the other's *Nights*, and *e contra*. (5.) They both agree in the four *Seaſons* of the Year.

The Antipodes. THE *ANTIPODES* are thoſe People who live under *oppoſite Parallels and Meridians*. Peculiar to them are the following Particulars: (1.) Their Footſteps are diametrically oppoſite to each other's. (2.) They have both the ſame Elevation of different Poles. (3.) They are equally diſtant from the Equator, but on different Sides, and in oppoſite Hemiſpheres. (4.) When it is *Noon* with one, it is *Midnight* to the other, and *vice verſâ*. (5.) The *longeſt Day* or *Night* to one, is the ſhorteſt to the other. (6.) Their *Seaſons* of the Year are *contrary*, &c.

The Amphiſcii. THE *AMPHISCII* were thoſe People who inhabited the *Torrid Zone*; and were thus named becauſe they caſt their *Shadows on both Sides* of them, *viz.* North and South.

The Periſcii. THE *PERISCII* were thoſe who lived in the *Frigid Zones*; ſo called becauſe their *Shadows fell all around* them on every Point of the Compaſs.

The Heteroſcii. THE *HETEROSCII* were thoſe who lived on the *Temperate Zones*; and were thus called becauſe they caſt their *Shadows only one Way*, viz. *North* in the *North* Temperate, and *South* in the *South* Temperate Zone.

A general View of the Four Great Continents, or Quarters of the World. WE come now to exhibit a general View of the Four *Great Continents*, or *Quarters* of the World, as they are very improperly call'd, *viz. Europe*, *Aſia*, *Africa*, and *America*, as they conſiſt of Nations and Kingdoms, with the following Particulars, *viz.* (1.) The *Latitudes*; and (2.) The *Longitudes* between which each Nation lies, and may be found in the Maps. (3.) The *Length*; and (4.) The *Breadth* of each Nation in general in *Engliſh* Miles. (5.) The *Climates* thro' which they ſeverally extend. (6.) The

chief

chief City in each. (7.) The *Latitude*, and (8.) *Longitude* of the said City. All which here follow:

The CONTINENT *of* EUROPE.

N°	Nations.	Lat. ° ′	Longit. ° ′	Len.	Brdth	Climate.	Chief City	Lat. ° ′	Longit. ° ′
1	*Norway*	57 00 72 00	22 00 50 00	1600	300	11. 12. 13. &c.	*Bergen.*	61 00	24 15
2	*Sweden*	56 00 69 00	32 00 55 00	660	780	9. 10. 11. 12.	*Stockholm*	59 26	39 05
3	*Denmark*	26 00 34 00	54 30 58 00	270	180	10. 11.	*Copenhagen*	56 13	32 30
4	*Muſcovy*	45 10 71 00	46 00 105 00	1630	1500	8. 9. 10. 11. 12. 13.	*Moſcow*	55 25	63 00
5	*Germany*	45 30 54 30	24 10 37 12	540	510	7. 8. 9. 10.	*Vienna*	48 14	37 05
6	*Poland*	48 00 58 20	34 30 53 30	780	600	9. 10. 11.	*Cracow*	49 56	40 47
7	*France*	42 30 51 10	12 10 26 30	520	450	6. 7. 8.	*Paris*	48 45	21 30
8	*Spain*	36 15 44 30	8 5 21 30	620	480	5. 6. 7.	*Madrid*	40 25	13 40
9	*Italy*	38 15 46 30	25 30 39 00	760	134	6. 7.	*Rome*	41 51	34 20
10	*Turkey* in EUROPE	36 30 49 20	36 00 53 00	770	660	5. 6. 7. 8.	*Conſtantinople*	43 00	54 20

The CONTINENT *of* *ASIA.*

N°.	Nations.	Lat.	Longit.	Len.	Br^dth	Climate.	Chief City	Lat.	Longit.
		° ′	° ′					° ′	° ′
1	*Tartary*	37 30 74 04	77 10 163 00	3000	2250	6 to 27	*Cambalu*	* *	* *
2	*China*	20 30 41 10	118 00 141 00	1380	1260	3. 4. 5. 6.	*Pecking*	39 40	133 36
3	*India*	08 12 40 00	92 00 131 00	1680	1690	2. 3. 4. 5. 6.	*Agra*	26 30	98 20
4	*Perſia*	25 40 44 30	70 30 97 00	1440	1260	4. 5. 6. 7.	*Iſpahan*	31 45	69 30
5	*Natolia*	35 00 44 00	48 00 68 00	720	400	6. 7.	*Burſa*	41 49	57 30
6	*Arabia*	12 00 34 00	53 00 80 00	1380	1080	2. 3. 4. 5.	*Medina*	24 50	59 10
7	*Syria*	33 30 38 30	61 00 68 30	560	200	5. 6.	*Aleppo*	36 10	56 30
8	*Euphrat: Provinces.*	* *	* *	*	*	*	*Bagdat*	33 30	62 30

The

The CONTINENT *of* AFRICA.

Z.	Nations.	Lat.	Longit.	Len.	Br^{dth}	Climate.	Chief City	Lat.	Longit.
		° ′	° ′					° ′	° ′
1	*Egypt*	21 10 30 00	52 06 62 40	650	310	3. 4.	*Cairo*	29 40	51 30
2	*Barbary*	24 40 35 00	04 16 52 10	2300	380	4. 5.	*Fez*	33 30	14 00
3	*Bildulgerid*	22 30 32 40	02 00 55 00	2040	300	4. 5.	*Dara*	27 00	08 42
4	*Zaara*	21 00 28 00	02 00 50 00	2340	330	3. 4.	*Tegassa*	21 51	06 00
5	*Negroland*	10 00 23 10	00 10 46 20	2280	600	2. 3.	*Tombut*	14 50	08 30
6	*Guinea*	04 10 11 40	03 00 30 00	1320	360	1. 2.	*Benin*	07 30	05 05
7	*Nubia*	09 30 23 00	42 00 57 00	840	570	2. 3.	*Dancala*	17 30	52 00
8	*Ethiop. Inf.*	9 N. 00 35 S. 00	35 00 45 00	2640	900	1 N. to 5 S.	*Monomotapa*	25 45	39 00
9	*Ethiop. Sup.*	24 S. 00 18 N. 00	45 00 69 00	1200	750	3 N. to 3 S.			

The CONTINENT *of* AMERICA.

N°	Nations.	Lat.	Longit.	Len.	Br^dth	Climates.	Chief City	Lat.	Longit.
		° ′	° ′					° ′	° ′
1	*Mexico*	8 50 30 00	259 00 297 00	2520	480	2. 3. 4.	*Mexico*	19 00	270 00
2	*Granada*	27 00 40 00		1140	780	5. 6.	*Sta Fee*	36 00	260 00
3	*Florida*	26 50 40 00	276 00 297 00	1000	600	5. 6.	*Coca*		
4	*Terra Canadenſis*	30 00 62 00	290 00 320 00	1500	1920	5 to 15.	*Boſton.*	42 40	310 00
5	*Terra Firma*	3 20 11 30	297 30 330 00	1260	480	1 ½	*Sta Fee de Bagota*	3 30	
6	*Peru*	25 30 1 00	390 30 307 10	1440	480	1. 2. 3.	*Lima*	12 20	
7	*Land of the Amazons*	2 N. 00 17 S. 00							
8	*Braſil*	1 00 23 00	322 00 346 30	1600	1380	1. 2. 3.	*SSalvador*	12 20	
9	*Chili*	25 30 44 00	392 00 306 00	960	480	4. 5. 6.	*St Jago*	34 00	
10	*Paraguay*	12 00 37 00	307 10 337 40	1560	1500	2. 3. 4. 5.	*Aſſumption.*	25 30	

IN this *Synopſis* of the Four *Continents*, I have expreſs'd only the *greater Parts* of which they conſiſt, and which are inhabited and known to us; whence ſome conſiderable Tracts in *America*, as *Terra Arctica*, *Antarctica*, *Magellanica*, &c. are here paſs'd by, as not coming under the Conditions of ſuch a View. I ſhall now exhibit another *Synopſis* of all the leſſer *Kingdoms*, *Principalities*, *States*, *Dutchies*, *Circles*, *Provinces*, and *Countries* comprehended under thoſe *larger Heads*, and into which they are divided; together with the *Metropolis* or chief City in each Province, and the *Latitude* and *Longitude* thereof.

The

The Subdivisions of the Continents *of* EUROPE.

NORWAY is divided into Five Governments.	Chief City.	Lat.		Longit.	
Bahus	*Bahus*	58	14	31	40
Aggerhus	*Anslo*	60	30	29	00
Bergen	*Bergen*	61	00	24	15
Drontheim	*Drontheim*	65	24	30	35
Wardhus	*Wardhus*	70	45	52	00

SWEDEN comprehends Seven Countries.

Sweden proper	*Stockholm*	59	26	39	05
Gothland	*Calmar*	57	06	36	32
Schonen	*Lunden*	56	44	33	22
Lapland	*Torneo*	66	03	44	00
Finland	*Abo*	60	23	43	33
Ingria	*Notteburg*	59	52	34	00
Livonia	*Riga*	56	54	45	34

DENMARK contains

The Peninsula of *Jutland*, comprehending North *Jutland*,	*Wiborg*	56	47	28	52
South *Jutland*,	*Sleswick*	55	57	29	24
The Isles of *Zeeland*	*Copenhagen*	56	13	32	30
Funen	*Odensee*	55	52	30	10
And other small ones.					

MUSCOVY or *RUSSIA* contains

Chief Southern Provinces,						
Smolensko	*Smolensko*	54	31	55	42
Novogrod Sewerski	*Novog. Sew.*	57	16	56	24
Czernikow	*Czernikow*	51	48	55	00
Ukrain	*Kiow*	50	42	53	20
Worotin	*Worotin*	54	10	62	00
Resan	*Resan*	54	30	65	05
Moscow	*Moscow*	55	25	63	00
Twer	*Twer*	56	35	60	20
Rosthow	*Rosthow*	67	10	63	25
Jaraslow	*Jaraslow*	57	35	63	30
Susdal	*Susdal*	56	35	62	25
Wolodimer	*Wolodimer*	51	00	67	10

Muscov. Tartary Chief Northern Provinces	*Muscov. Lapland*	*Kola*	69	25	56 30
	Kargapol	*Kargapol*	61	25	64 10
	Dwina	*Archangel*	64	50	65 10
	Condora	*Wirgatoria*			
	Obdora	*Bereſof*			
	Permski	*Perma-Weliki*	62	34	81 40
	Niſi-Novogrod	*Niſi-Novog.*	58	00	69 25
	Wologda	*Wologda*	59	05	65 10
	Novogrod-Weliki	*Novog. Weliki*	58	10	55 18
	Pleskow	*Pleskow*	57	25	50 30
	Samoieda				
	Siberia	*Tobalsko*	58	15	81 50
	Dauri	*Nerzinskoy*	53	00	
	Kamſatka				
	Bulgaria	*Bulgar*			
	Aſtracan	*Aſtracan*	17	00	

GERMANY is divided into Ten Circles.

Belgium	*Holland*	*Amſterdam*	52	29	24 00
	Flanders	*Bruxelles*	50	54	23 36
Weſtphalia		*Munſter*	52	00	27 12
Lower Saxony		*Hamburg*	53	57	29 20
Upper Saxony		*Wittenburg*	51	54	33 02
Lower Rhine		*Heidelberg*	49	17	28 27
Upper Rhine		*Francfort*	50	03	28 12
Franconia		*Nuremburg*	49	24	31 11
Suabia		*Ausburg*	48	14	37 57
Bavaria		*Munick*	47	58	31 36
Auſtria		*Vienna*	48	14	37 05

POLAND contains the following Provinces, *&c.*

The Dukedom of *Lithuania*	*Wilna*	54	31	47	14
The Province of *Volhinia*	*Kiou*	50	42	53	20
The Province of *Podolia*	*Caminieck*	48	50	47	46
The Dukedom of *Curland*	*Mittaw*	57	00	44	00
The Dukedom of *Samogitia*	*Roſinie*	55	15	44	48
The Province of *Polaquia*	*Bielha*	55	30	56	35
The Province of *Little Ruſſia*	*Lemberg*	49	30	45	00
The Kingdom of *Pruſſia*	*Dantzick*	54	13	40	42
The Dukedom of *Warſovia*	*Warſaw*	52	07	42	05
Proper *Polonia*	*Cracow*	49	50	40	47

FRANCE

FRANCE contains Twelve Governments.						
Picardy — — — —	*Amiens*	49	54	21	26
Normandy — — — —	*Roven*	49	26	20	02
Isle of France — — —	*Paris*	48	45	21	30
Champaigne — — —	*Troyes*	48	07	23	17
Britanny — — — —	*Rennes*	48	03	16	30
Orleanois — — — —	*Orleans*	47	44	20	42
Burgundy — — — —	*Dijon*	43	37	24	09
Lionois — — — —	*Lions*	45	24	24	00
Guienne and *Gascony* — —	*Bourdeaux*	44	50	17	50
Languedoc — — — —	*Thoulouse*	43	29	19	48
Dauphiné — — — —	*Grenoble*	44	54	25	04
Provence — — — —	*Aix*	43	04	24	40

SPAIN with *PORTUGAL* contains					
The Lordship of * *Biscay* —	*Bilboa*	43	47	14	22
The Principality of * *Asturia*	*Oviedo*	43	23	11	05
The Kingdom of *Gallicia* —	*Compostella*	43	00	08	16
The Kingdom of * *Portugal*	*Lisbon*	38	45	07	37
The Kingdom of * *Algarve*	*Tavira*	37	00	09	14
The Province of *Andalusia* —	*Seville*	37	30	11	14
The Kingdom of *Granada* —	*Granada*	37	28	13	55
The Kingdom of *Murcia* —	*Murcia*	38	04	16	34
The Kingdom of *Valencia* —	*Valence*	39	25	17	15
The Principality of *Catalonia*	*Barcelona*	40	34	20	33
The Kingdom of *Arragon* —	*Saragossa*	41	35	17	00
The Kingdom of *Navarre* —	*Pampelona*	42	52	16	06
The Province of *Old Castile*	*Burgos*	46	55	21	14
The Province of *New Castile*	*Madrid*	40	25	13	40
The Kingdom of *Leon* — —	*Leon*	42	44	11	08

ITALY contains the Dominions of					
The Church, or *Peter*'s Patri.	*Rome*	41	51	34	20
The Kingdom of *Naples* —	*Naples*	40	56	36	15
The Dutchy of *Milan* — —	*Milan*	44	55	29	13
The Republic of *Venice* — —	*Venice*	45	20	34	04
The Dukedom of *Savoy* — —	*Chambery*	45	04	25	24
The Principality of *Piedmont*	*Turin*	44	34	27	26
The Dukedom of *Tuscany* —	*Florence*	43	20	32	10
The Republic of *Genoa* — —	*Genoa*	43	53	29	00
The Dukedom of *Mantua*	*Mantua*	44	52	31	10
The Dukedom of *Montferrat*	*Casale*	44	40	28	17
The Dukedom of *Modena* —	*Modena*	44	14	31	32

The Dominions mark'd with (*) belong to the King of *Portugal*.

The Dukedom of *Reggio*	*Reggio*	44	18	31	04
The Dukedom of *Parma*	*Parma*	44	24	30	40
The Dukedom of *Placentia*	*Placenza*	39	48	11	50
The Dukedom of *Maſſa*	*Maſſa*	43	24	30	36
The Dukedom of *Mirandola*	*Mirandola*	44	35	31	38
The Republic of *Lucca*	*Lucca*	43	13	31	38
The Biſhoprick of *Trent*	*Trent*	45	48	31	24

TURKEY in EUROPE comprehends

**Hungary*	*Buda*	47	38	40	15
Tranſilvania	*Hermanſtat*	46	46	45	48
Walachia	*Targoviſco*	45	54	47	38
Moldavia	*Soczow*	47	44	48	30
Little Tartary	*Kaffa*	47	20	61	21
Romania	*Conſtantinople*	43	00	54	20
Bulgaria	*Sophia*	43	25	47	12
Servia	*Belgrade*	45	20	42	34
Boſnia	*Saraio*	44	54	40	30
Sclavonia	*Poſega*	45	46	39	42
Croatia	*Wihitz*	45	18	37	44
Dalmatia	*Spalatro*	44	00	38	50
Greece	†*Salonichi*	41	37	47	00

I SHALL now give a ſhort Account of the *Air*, *Soil*, *Manners* of the People, *Religion*, *Univerſities*, *Language*, *Commodities*, &c. of the ſeveral Countries on the *European Continent*; for their ſeveral Governments, I ſhall refer the Reader to the Title of *Hiſtory*.

Of Norway. IN *NORWAY* the *Air* is intenſely cold, and the Mountains always cover'd with Snow. Moſt of the Country is nothing but *Rocks*, *Mountains*, and *Woods*. Their Trade lies in Fiſh, Furs, Train-Oil, Pitch, Maſts, Deals, Cables, Copper, Hides, Cheeſe, &c. The People are hardy, laborious, ſtrong, and courageous, plain in their Temper, juſt in their Dealings, and civil to Strangers. Their Religion is *Lutheraniſm*, and in ſome Parts *Popery*. Here are three *Biſhopricks*; and their *Language* is various, *Iſelandic*, *Teutonic*, *High-German*, and *French*.

SWEDEN

* The greateſt Part of *Hungary* now belongs to the Emperor of *Germany*. † The ancient *Theſſalonica*.

SWEDEN enjoys a clear, dry, cold, yet pure and very wholeſome Air. Their *Seaſons* are altogether *Winter* or *Summer*. The Mid-land Country is indifferent fertile, and they have ſome fruitful Valleys. The *Swedes* are naturally ſtrong and vigorous; grave and reſerv'd; yet idle, invidious, and ſelf-opinionated. Their Women are fair and witty. Their *Trade* lies in Metals, Ox-Hides, Furs, Pitch, Tar, Roſin, Tallow, Honey, Maſts, Deals, Oak, *&c.* Their *Religion* is *Lutheraniſm* and *Popery*. They have eight Biſhopricks, and two Univerſities. Their Language is a Dialect of the *Teutonic*; the Gentry ſpeak *High-Dutch* and *French* in Perfection. *Of* Sweden.

IN *DENMARK* the Air is alſo cold, but ſweet and wholeſome in the Country. Here likewiſe are but two Seaſons, *Summer* and *Winter*. The *Soil* is pretty fertile in Corn, Fruit, and Vegetables. The *Danes* are tall, ſtrait and handſome; but mean-ſpirited, cheating, and miſtruſtful, ſubject to Apoplexies and Epilepſies. Their Trade is in Fiſh, Furs, Skins, Deals, Maſts, Armour, Pitch, Tar, Oil, Iron, *&c.* They are generally *Lutherans*, but ſome Papiſts. They have two Univerſities and five Biſhopricks. Their Language is *Teutonic*, *High-Dutch*, and *French*. *Of* Denmark.

MUSCOVY is very hot, temperate, or very cold, according to the Situation of its Parts from *South* to *North*. The *Soil* is alſo very different, but, in general, is overgrown with Woods and Foreſts; they have ſome marſhy Plains, and good Corn-land towards the *South*. The *People* are of a very healthful Conſtitution, and long-lived; robuſt, and ſtrong-built, but not tall; cruel, ignorant, yet very conceited. Their Commodities are Furs, Fiſh, Pot-aſhes, Hemp, Soap, Honey, *Ruſſia* Leather, Elk Hides, Tallow, Wax, Train-Oil, Caviere, Slad, Iron, *&c.* Their *Religion* is according to the *Greek Church*, in general. Their Language is near a-kin to the *Sclavonian* and *Poliſh*. *Of* Muſcovy.

GERMANY likewiſe being of ſo great an Extent from *North* to *South*, hath a different Temperature of Air in its ſeveral Parts. The *Soil* is generally rugged, and either fill'd with Lakes and Marſhes, or cover'd with extenſive Woods; in ſome *Of* Germany.

Places there is very good Corn and Paſturage Land. The *Germans* are reckon'd luxurious, hoſpitable, valorous, and patient of Labour; remarkable for Integrity, and hating Flattery and Diſſimulation. They export various Metals, Allom, Fleſh, Quick-ſilver, Armoury, *&c.* They profeſs Popery in general; though there are many *Lutherans* and *Calviniſts* among them. In this great Empire are thirty-ſix Univerſities and fifty-ſix Biſhopricks. They ſpeak the High and Low *Dutch* and *Walloon* Languages.

Of Poland. *POLAND* is ſituated in the temperate *Zone*, but yet has great Extremity of Cold to the *North*. The *Soil* for the moſt part is champain and open, in ſome Places it has great Woods and Foreſts, and ſome conſiderable Mountains, Lakes, and Marſhes. The *Poles* are fair, largely made, of yellow Hair; are civil, affable, brave, ſincere, and jealous of their Honour and Liberty, and exceed moſt *Europeans* for Vivacity of Spirit, Strength of Body, and long Life. Their *Trade* lies in Honey, Wax, Amber, Roſin, Furs, Oak, Wainſcot, Maſts, Deals, Salt-Petre, Cordage, Pot-Aſhes, Opium, Vitriol, *Lapis Lazuli*, Metals, *&c.* They are generally bigotted *Papiſts*, ſome Part *Lutherans* and *Calviniſts*. They have four Univerſities and fourteen Biſhopricks. Their Language is a Dialect of the *Sclavonic*.

Of France. *FRANCE* is for the moſt part very temperate, and rather too warm than cold. The *Soil* produces every thing neceſſary for the Uſe of Man. The *French* are remarkable for Levity of Temper, they are generous, prodigal, ſprightly, daring, yet faint-hearted; they have good Heads for Invention, and are docible in learning Arts and Sciences. The Commodities of this Country are many, as Corn, Flax, Wool, Salt, Fiſh, Wines, Coral, Skins, Alamodes, Silks, Linen, Iron, *&c.* Their *Religion* is Popery; they have twenty Univerſities, eighteen Archbiſhopricks, and a hundred and nine Biſhopricks. The Language is a Compound from the antient *Gallic*, *German*, and *Latin* Tongues.

Of Spain: *SPAIN* and *PORTUGAL* have generally a very pure and calm Air, but extremely hot in Summer. The *Soil* is in many Places dry, barren, and abounding in Woods and Mountains; in others productive

ductive of rich Fruit and Wines. The People are ſoft, laſcivious, jealous, yet impotent in regard of Venery; grave, devout, and zealous in religious Matters; cruel towards *religious*, but merciful towards *civil* Offenders: Their Trade is in Honey, Sugar, Oil, Metals, Wines, Rice, Raiſins, Oranges, Lemons, Almonds, Cork, Marble, Salt, *&c.* They are the moſt zealous Papiſts. *Spain* hath eight Archbiſhopricks, forty-two, Biſhopricks, and twenty Univerſities. *Portugal* has three Archbiſhopricks, nine Biſhopricks, and three Univerſities. The *Spaniſh* Language is derived from the antient *Latin*; and the *Portugueſe* from the *French* and *Spaniſh*, eſpecially the latter.

ITALY is ſaid to enjoy an healthful and temperate Air, except in the *Land of the Church*, where 'tis thick and dangerous. The *Soil* is naturally very fertile, and produces the fineſt of Corn, Wines, and Fruits. The Woods are here continually green, and the Mountains and Vales moſt pleaſant in their kinds. *Italy* has been call'd the *Garden of Europe*. The *Italians* are of a middle Stature, tender, cunning, polite, complaiſant, eloquent, and affect Praiſe and Pomp of every ſort; are given to Diſſimulation, Jealouſy and Revenge, and are the moſt bigotted Devotees in the World. Their chief *Commodities* are Wines, Corn, Rice, Silks, Velvets, Satins, Grograms, Fuſtians, Allom, Minerals, Metals, precious Stones, Coral, *&c.* Their Religion is *Popery* in the groſſeſt Degree. Beſides the Popedom, there are two Patriarchates, thirty-four Archbiſhopricks, above two hundred and thirty Biſhopricks, and ſixteen Univerſities. Their Language is the old *Latin* mix'd with that of the *Goths* and *Vandals*. *Of* Italy.

HUNGARY is ſaid to have a very unwholeſome Air to breathe in, on account of the mooriſh Ground, and Lakes. The *Soil* is fruitful in Corn, Roots, and Fruits; and affords excellent Paſturage. The *Hungarians* are more addicted to Wars than Arts; are ſtrong, well made, valiant and daring, but cruel and inſulting to Captives. The *Commodities* are Copper, Iron, Quickſilver, Antimony, Salt, and the various Produce of the Soil. They are generally *Papiſts*, but here are alſo *Lutherans*, *Calviniſts*, *Jews*, and *Of* Hungary.

Mahometans. Here are two Archbiſhopricks, ſix Biſhopricks; and the *Language* they ſpeak is peculiar to themſelves.

Of Crim-Tartary. *LITTLE TARTARY* is allow'd to have a temperate Air, but yet unhealthful to breathe in. The *Soil* is very different, abounding here with Grain and Fruit, and there with Marſhes and barren Mountains. The *Crim-Tartars* are of vigorous and robuſt Bodies, patient of Hardſhips, good Soldiers, juſt to each other, but not to Strangers. Their *Food* is Horſe-Fleſh, and Mare's-Milk. Their *Commodities* are *Slaves*, Leather, Skins, Furs, *&c.* Their *Religion* is *Mahometaniſm*, though *Chriſtians* of various Sorts are intermixed with them. Here are two Biſhopricks. Their Language is the *Scythian*, or pure *Tataresque.*

Of Greece. *GREECE* and the other *PROVINCES* of *Turkey* in *Europe*, have, in general, an happy Situation, and enjoy a pure and temperate Air. The *Soil* is very fertile in moſt Parts, and affords all the Neceſſaries of Life. The *Turks* are Men of a ſwarthy *Complexion*, robuſt *Bodies*, of a good *Stature*, of great *Integrity*, civil, charitable, and zealous of their Religion; yet are addicted to ſome deteſtable Vices not to be named among *Chriſtians.* Their *Commodities* are Raw Silks, Pernococchi, Oil, *Turkey* Leather, Cake Soap, Honey, Galls, Cottons, Aniſeed, Carpets, Mohair, Camblets, Grograms, and other rich *Turkiſh* Commodities. The eſtabliſh'd Religion of theſe Provinces is *Mahometaniſm*; but here are many *Jews* and *Chriſtians*, who have a *Patriarch* at *Conſtantinople*, and ſeveral Archbiſhopricks and Biſhopricks. In *Greece* the Language uſed by the *Chriſtians* is the *Vulgar Greek*, and that uſed by the *Turks* here and in other Parts is the *Turkiſh*, which is (originally) the *Sclavonian* with ſome Alterations.

On the CONTINENT of *ASIA.*

Of Tartary. *TARTARY* (which alone is much larger than all *Europe*) is divided into five great Parts, *viz. Zagathay*, *Cathay*, *Turqueſtan*, *Tartary proper*, and *Tartary*

tary deſart. The *Air* is very different in different Parts. The *Soil*, for the greateſt part, is very barren, being every where incumber'd with unwholeſome Marſhes, and uninhabited Mountains and Deſarts. The *Tartars* are ſwarthy, ſtrong, middle-ſized, have broad Faces, hollow Eyes, thin Beards, thick Lips, flat Noſes, and an ugly Mien. They are rude and barbarous, ſtroll about in Tents, living on Rapine, eating the Fleſh and drinking the Blood of their Enemies. Their Trade is in Sable, Martins, Silks, Camblets, Flax, Musk, Cinnamon, Rhubarb, *&c.* They are generally *Pagans*, though here are ſome *Mahometans*, *Jews*, and *Chriſtians*. Their Language has ſome Affinity with that of the *Crim-Tartars* and the *Turkiſh* Language.

CHINA is divided into ſeventeen Provinces, *viz.* *Leaotung*, *Corea*, *Xantung*, *Peking*, *Xanſi*, *Honan*, *Xenſi*, *Nanking*, *Chekiam*, *Kiamſi*, *Fokien*, *Hunquam*, *Canton*, *Quamſi*, *Queicheu*, *Yunnan*, *Suchuen*. The *Air* is temperate, except towards the *North*, where 'tis ſometimes exceſſive cold. The *Soil* is generally very rich and fertile, inſomuch that they have two or three Harveſts in a Year; it abounds with Corn, Wine, and all kinds of Fruit. The *Chineſe* are for the moſt part fair, ſhort-noſed, black-eyed, and of very thin Beards. They are eſteem'd ingenious, and Lovers of Sciences, but intolerably conceited. The *Commodities* of *China* are Gold, Silver, precious Stones, Quick-ſilver, Porcelane Diſhes, Silk, Cottons, Rhubarb, Sugar, Camphire, Musk, Ginger, China-Wood and Ware, *&c.* The *Chineſe* are groſs *Idolaters*; here are alſo *Mahometans* and *Chriſtians*. Their Language has no Likeneſs to any other in Nature, Pronunciation, or way of Writing. *Of* China.

INDIA has a threefold Diviſion, *viz.* (1.) *Indoſtan* or *Empire* of the *Great Mogul*, containing the Kingdoms of *Delli*, *Agra*, *Cambaia*, *Bengala*, &c. (2.) The Peninſula within the *Ganges*, containing *Malabar*, *Decan*, *Golcond*, *Biſnagar* and *Coromandel*. (3.) The Peninſula without the *Ganges*, containing the Kingdoms of *Malacca*, *Siam*, *Martaban*, *Cambodia*, *Cochinchina*, *Pegu*, *Arracan*, *Ava*, *Tonquin*, *Laos*. Theſe Kingdoms lie in the *Torrid Zone* for the moſt part, and therefore muſt needs be very hot; but the *Of* India.

Soil is generally very rich and plentiful in all kinds of Fruits and various Grain. The *Indians* are very different in their Manners and Cuſtoms in ſo great an Empire; they are tall, ſtrong, and almoſt black; ingenious in Arts, civil of Behaviour, and pretty juſt in their Dealings. Their *Commodities* are Aloes, Musk, Rhubarb, Civets, Indigo, Laique, Gums, Amber, Minerals, Metals, Spices, rich Manufactures of Silk, Cotton, *&c.* and moſt ſorts of Drugs. The Inhabitants are groſs Idolaters, their Languages are very numerous and different, and of which we know but very little.

Of Perſia. *PERSIA* contains thirteen Provinces, *Sinda*, *Macran*, *Sigeſtan*, *Sableſtan*, *Choroſtan*, *Eſtarabad*, on the *Eaſt*; *Tabriſtan*, *Chirwan*, *Adirbeitzan*, *Iraca-Agemi*, on the *North*; and *Chuſiſtan*, *Fariſtan*, *Kerman*, on the *South*. The Air is temperate towards the *North*, but very hot in the *Summer* towards the *South*. The *Soil* is alſo different, being barren in the Northern Parts, but exceeding fertile and pleaſant on the *South* of Mount *Taurus*, producing all kinds of Corn, Fruits, and Wines. The *Perſians* are naturally great Diſſemblers, Flatterers, and Swearers; proud, paſſionate, and revengeful; given to Paſtimes; but yet are ſaid to be juſt and honeſt in their Dealings, and civil to Strangers. Their Commodities are rich Silks, Carpets, Tiſſues, Gold, Silver, Seal-Skins, Goat-Skins, Alabaſter, Metals, Myrrh, Fruits, *&c.* The Religion is *Mahometaniſm*, with ſome Difference from the *Turks*. Their Language has a great Tincture of the *Arabic*, and is eſteemed the modiſh Tongue of *Aſia*.

Of Natolia. *NATOLIA* (formerly call'd *Aſia Minor*) is now divided into four Provinces, *viz.* *Natolia* proper, *Amaſia*, *Caramania*, and *Aladulia*. The Air of *Natolia* is in ſome Places pure and healthful, in others extremely groſs and peſtilentious. The *Soil* is extraordinary fertile, but lies too much uncultivated. The Inhabitants of this large Country are chiefly *Turks* and *Greeks*; their Commodities are Raw Silks, Goats Hair, Cotton, Cordovans, Calicuts white and blue, Wool, Tapeſtries, Soap, and divers ſorts of Drugs. The eſtabliſhed Religion is *Mahometaniſm*; but here are many *Chriſtians* of the *Greek* Church, as well

well as others. The prevailing Languages in theſe Countries are the *Turkiſh* and *Vulgar Greek*.

ARABIA is divided into three great Parts, *viz.* *Beriar*, or *Arabia Deſert*; *Baraab*, or *Arabia Petræa*; and *Ayman*, or *Arabia Fœlix*. The *Air* of this Country is very hot, as being in part in the torrid *Zone*; and the *Soil* is indicated by the Names *Deſert*, *Petræa* or *Stony*, and *Fœlix* or *Happy*; one Part being over-ſpread with Mountains of Sand, the other of Rocks, and the latter is exceeding fertile in moſt Places. The *Commodities* here are Coral, Pearl, Onyx-ſtones, Balm, Myrrh, Incenſe, Gums, Caſſia, Manna, and ſeveral other Drugs and Spices. The *Arabians* are now an ignorant, treacherous and barbarous ſort of People, moſt of them idle Vagabonds and Robbers; but thoſe of *Arabia Fœlix* are ſaid to be civil and honeſt in their Deportment to all Perſons. Their *Religion* is the Impoſture of *Mahomet*, who was a Native of this Country. Their Language, (*viz.* the *Arabic*) I have already deſcribed; it is now very corruptly ſpoken among the *Arabs*, and many other People thereabouts. *Of* Arabia.

SYRIA comprehends the three Diſtricts of *Syria* proper, *Phœnicia* and *Paleſtine*. The Air is here pure and ſerene, and very wholeſome to breathe in, but very warm in Summer. The *Soil* is here exceeding kind, fat, and fertile in moſt Places, abounding with large and pleaſant Plains. The Inhabitants are chiefly *Turks* and *Greeks*, with many *Jews* and *Armenians*. The Trade of *Aleppo* conſiſts in Silks, Camblets, Gall-Nuts, Cotton, Mohair, Soap, Galls, Jewels, Spices, Drugs of all Sorts, *&c.* The Religions here are *Mahometaniſm* eſtabliſhed, *Chriſtianity* and *Judaiſm* allow'd, as being the Country which antiently gave Riſe to both. The Language of the Country is the *Turkiſh*; the *Europeans* reſiding here ſpeak the *Lingua Franca*. *Of* Syria.

DIARBECK, *TURCOMANIA* and *GEORGIA*, make the remaining Part of *Turkey* in *Aſia*. Theſe Provinces lie between the *Euxine* and *Caſpian* Seas, and on the River *Euphrates*. The Air is temperate, pleaſant and healthful in general. The *Soil* affords excellent Paſturage on the Banks of *Tigris* and *Euphrates*, and in other Places Variety of Fruits and *Of the* Euphratian *Provinces*.

and Grain. The People are of different Manners and Tempers in the different Provinces; they export or barter with their Neighbours, Pitch, Fruits, Silk and such like Commodities. The prevailing Religion is that of the *Armenians*. The *Christians* in *Asia* have three *Patriarchs*, viz. of *Jerusalem*, *Alexandria*, and *Antioch*; besides two *Armenians*, and one *Nestorian* at *Mosul* in *Diarbeck*. These have under them various Archbishops and Bishops; but notwithstanding this, Christianity here is in a pitiful Plight, groaning under the *Turkish* Yoke, and distracted with various Sects and Heresies, as *Armenians*, *Jacobites*, *Maronites*, *Nestorians*, *Melchites*, &c.

On the *CONTINENT* of *AFRICA*.

Of Egypt. *EGYPT* is divided into four Parts, *viz.* *Erife*, or *Lower Egypt*; *Bechira*, or *Middle Egypt*; *Salrid*, or *Upper Egypt*; and the Coasts of the *Red Sea*. The Air is extremely hot, and esteem'd very unwholesome, being infested with noxious Vapours from the *fat* and *slimy Soil* of the Earth, which is occasion'd by the overflowing of the *Nile*, and which is thereby render'd exceeding fertile and plentiful of all sorts of Grain. The *Egyptians* are of a low Stature, are tawny and spare; they are reputed great Cowards, luxurious, cunning, cruel, and treacherous; and much addicted to Divination. The Commodities are Sugar, Flax, Rice, Corn, Fruits, Linnen Cloth, Salt, Balsam, Senna, Cassia, and other Drugs. The *Religions* here are *Mahometanism*, *Christianity* and *Judaism*; but mostly the former. The common Languages are the vulgar *Arabic* and *Turkish*; but the *Cophti Christians* still retain the antient *Egyptian* Tongue, especially in their religious Rites.

Of Barbary. *BARBARY* contains six Kingdoms, *viz.* *Morocco*, *Fez*, *Algiers*, *Tunis*, *Tripoli* and *Barca*. The Air is pretty temperate and healthful to breathe in. The *Soil* is fertile in Corn and Fruits, though it abounds in Woods and Mountains. The *Barbarians* are said to be inconstant, crafty, unfaithful, active of Body, impatient of Labour, and covetous of Honour. Some are addicted to Learning, others to Merchandize,

dize, and many to Piracy. The chief *Commodities* are Honey, Wax, Oil, Sugar, Flax, Hemp, Hides, Cordevants, Dates, Almonds, Mantles, *&c.* The eſtabliſh'd Religion is *Mahometaniſm*, and their Language in moſt Places is the *Arabeſque*, and old *African* Tongue, or a corrupt Dialect thereof.

BILDULGERID contains eight Provinces, *viz. Barca Deſart, Bildulgerid Proper, Zeb, Tegorarin, Segelmeſe, Tafilet, Darha, Teſſet.* The Air is very hot, yet very wholeſome to breathe. The *Soil* is generally barren and ſandy; but here are low Valleys of Corn and abundance of Dates. The *Inhabitants*, beſides the Natives, are chiefly *Arabs*, who follow their Trade of Robbing, *&c.* The *Commodities* of this Country are few, chiefly Corn, Cattle, Dates, and Indigo. They who know any thing of Religion profeſs the Doctrine of *Mahomet*; the Language of the Natives is little known, the *Arabs* uſe their own. *Of* Bildulgerid.

ZAARA, or the *Deſart*, contains ſeven Provinces, *viz. Zanhaga, Zuenziga, Targa, Lempta, Berdoa, Borno, Goaga.* The Air is exceeding hot, but very wholeſome to breathe in. The *Soil* is dry and ſandy, and ſo barren that it is difficult to live or travel here. As for the *People*, their *Commodities*, *Religion* and *Language* of this Country, they are much the ſame with thoſe of *Bildulgerid*, but more wretched of the two. *Of* Zaara.

NEGROLAND comprehends the Kingdoms or Provinces of *Biafar, Melli, Mandinga, Gago, Guber, Zegzeg, Zanfara, Gangara, Caſſena, Cano, Agades, Tombut, Gualata, Genehoa*; with the People of *Jalloſi, Caſanga* and *Bijago*. This Country being wholly within the *Torrid Zone*, the Air is very hot, yet very healthful; and the *Soil* very rich and fertile in Corn, Herbs and Metals. The *Negroes* are a People of a black Complexion, very ignorant, rude and barbarous, addicted to Luxury and beaſtly Pleaſures. Their *Commodities* are Oſtrich-Feathers, Gums, Amber, Gold, Red-wood, Civet, Elephant's Teeth, *&c.* The Natives are groſs Idolaters; and others *Mahometans*. The Languages of this great Country are various, and little known to us. *Of* Negroland.

GUINEA is divided into three great Parts, *viz.* (1.) The Kingdom of *Benin.* (2.) *Guinea Proper*, con- *Of* Guinea.

containing the Ivory Coaſt, *Quaqua* Coaſt, and Gold Coaſt. (3.) The Coaſts of *Malaguette*. The Air of this Country is extremely hot, and very unwholeſome to Strangers. The *Soil* is very fertile, and produces the choiceſt of Grains and Fruit. The Natives are of the blackeſt Complexion, go naked generally, and are moſtly a cheating, proud, lazy and thieviſh People. The chief *Commodities* are Gold, Ivory, Hides, Wax, Ambergreaſe, *Guinea* Pepper, Red-wood, Sugar, Civet, *&c.* Their Religion is *Paganiſm*; and their Languages many, the chief of which is call'd *Sungai*.

Of Nubia.

NUBIA is properly a Part of *Ethiopia Superior*: The Air is here extremely hot, being ſeldom qualified with Rain. The *Soil* is ſaid to be very fertile near the *Nile*; but elſewhere barren, and cumber'd with Mountains of Sand. The *Nubians* are reported to be ſtrong, courageous, cunning, laborious, warlike and wealthy People. Their *Traffic* is in Gold, Ivory, Civet, Sugar, Arms, *&c.* The *Religions* here are *Paganiſm* and *Mahometaniſm*. Their Language is peculiar to themſelves, yet hath ſome Affinity to the *Arabic* and *Chaldean* Tongues.

Of Ethiopia *Superior.*

ETHIOPIA Superior contains the Empire of the *Abyſſines*, and the Coaſts of *Abex*, *Ajan*, and *Zanguebar*. The Air of this Country is very hot, except in ſome low Valleys. The *Soil* is very fertile in ſome Parts, and over-run with ſandy Mountains and formidable Rocks in others. The People are eſteem'd to be lazy, ignorant and treacherous in general, though ſome are ingenious and religious. The *Commodities* are Gold, Metals, Gems, Corn, Cattle, Salt, Flax, Wines, Sugar-Canes, *&c.* Here are *Pagans*, *Jews*, and *Mahometans*, but the Body of the Natives is *Chriſtian*. The *Ethiopic* Language has ſome Affinity with the *Hebrew* and *Chaldee*.

Of Ethiopia *Inferior.*

ETHIOPIA Inferior contains the Empires of *Moncemugi* and *Monomotapa*; the Kingdoms of *Angola*, *Congo*, *Loango* and *Biafar*; and the Country of the *Caffers*. The Air of theſe Countries is extremely hot in general, but is qualified with daily Showers and Winds. The *Soil* is various in different Parts, ſome being more fertile than others, and ſome entirely barren. The People are of divers ſorts alſo, and are generally

nerally eſteem'd a ſwarthy, dull, and ſavage People, eſpecially thoſe call'd *Caffers* or *Hottentots*. The Commodities of theſe Kingdoms are Gold, Silver, Ambergreaſe, Pearls, Musk, Rice, Millet, Cattle, Lemons, Citrons, Ivory, Oil, *&c.* The Inhabitants are all in general *Pagans* of the groſſeſt Notions; and their Languages are peculiar to the ſeveral Nations.

On the CONTINENT *of* AMERICA.

Of Mexico, *or* New Spain.

MEXICO or *NEW SPAIN* contains three Audiences, *viz.* *Guadalajara*, *Mexico* Province, and *Guatalama*. The Air of this Country is pretty temperate, tho' in the *Torrid Zone*. The Soil is very fertile in Grain, Fruits, Herbs and Ores. This Country is in the Hands of the *Spaniards*. The Natives are ſaid to be a civil, docile and faithful People. The Commodities are Wool, Cotton, Sugar, Silk, Cochineal, Feathers, Honey, Balm, Amber, Salt, Tobacco, Tallow, Hides, Ginger, and divers ſorts of Drugs. The *Spaniards* have here one Archbiſhoprick and eleven Biſhopricks. The general Language is the *Spaniſh*, and the Religions *Paganiſm* and *Popery*.

Of Granada, *or* New Mexico.

GRANADA or *NEW MEXICO* is a large Country, but of no certain Extent or Diviſion. The Air is very temperate and healthful, but attended with frequent Hurricanes, beſides Thunder and Lightning. The Soil, ſo much of it as is known, is generally dry, ſandy and barren. The Inhabitants are ſaid to be tolerably civil, addicted to Hunting, and to underſtand *Agriculture*. The Commodities of this Country are very few, Cattle being the chief or only thing they trade in. The *Spaniards* reſiding here, uſe their own Religion and Language; but the Natives are groſs Idolaters.

Of Florida.

FLORIDA enjoys a very temperate Air, and a Soil wonderfully fertile in Grain, Herbs, and Fruits. The *Floridans* are tall, well-proportion'd, Warriors, and go almoſt naked; and tho' naturally *white*, they paint themſelves of an Olive Colour. The Commodities here are few and coſtly, *viz.* Gold, Silver, Pearls and Furs. The *Spaniſh* Colonies here uſe their own Religion and Language, the Natives being groſs Idolaters, worſhiping the *Sun* and *Stars*.

Of Canada. *CANADA* comprehends on the *North* of St. *Laurens* River, *Canada Proper*, *New Britain*, and *New France*; on the *South*, the Territories of *New Scotland*, *New England*, *New York*, *New Jerſey*, *Penſilvania*, *Maryland*, *Virginia*, *Carolina*. Of theſe Countries (eſpecially the ſix or ſeven latter ones) the Air is generally temperate and wholeſome, and the Soil rich and fertile; tho' in ſome Parts it is barren enough. The *Engliſh* are Maſters of the greateſt Part of theſe Countries. The Commodities are Fiſh, Grain, Maſts, Deals, Iron, Tar, Beaver Skins, Furs, *&c.* from *New England*: Tobacco, Beaver, Otter, Rattoon, Deer, and Elk Skins, and other coſtly Furs from *New York*: Whale-Oil and Fins, Beaver, Monkey, Rattoon, and Martin Skins, with Proviſions from *New Jerſey*: Horſes and Pipe-Staves to *Barbadoes* from *Penſilvania*: Tobacco, Hemp, Flax, Wood, Hops, Rape-ſeed, Madder, Furs, Elk Skins, *&c.* from *Maryland*: Skins of Deer, Beaver, and other wild Beaſts, but eſpecially *Tobacco*, from *Virginia*: Skins of Otters, Bears, and Leopards, with Oil, Olives, Cotton, and divers ſorts of Drugs from *Carolina*. The *Engliſh* here reſiding, profeſs the different Perſuaſions among *Proteſtants*; and the Natives are *Idolaters*, and have particular *Jargons* of Speech.

Of Terra Firma. *TERRA FIRMA* contains eleven Governments, *viz.* *Caribana*, *Guiana*, *Panama*, *Carthagena*, *St. Martha*, *Rio de la Hacha*, *Venezula*, *Andaluſia*, *Paria*, *Granada*, *Popayan*. The Air is extremely hot, yet wholeſome; the Soil very fertile, when well manured. The Natives are tawny, robuſt, healthful, long-liv'd, and go naked above the Middle. The Commodities of this Country are Gold, Silver, and other Metals, Balſam, Reſin, Gums, Long-Pepper, Emeralds, Sapphire, Jaſper, *&c.* Here is one *Spaniſh* Archbiſhoprick, and four Biſhoprieks. The Natives are groſs Idolaters, and have great Diverſity of Languages and Dialects in each Language.

Of Peru. *PERU* is divided into ſix Provinces, *Quito*, *Peru*, *Los Charcas*, *Patamores*, *Los Quixos*, and *Poſto*. The Air is in ſome Parts extremely hot, in others ſharp and piercing. The Soil is the richeſt of all the *Spaniſh* Plantations, abounding with exceeding high Mountains, and large and pleaſant Valleys. The *Peruvians*

ruvians are ſome ſimple and very ignorant, others more ingenious, but addicted to Diſſimulation and Sodomy. The Commodities are vaſt Quantities of Gold and Silver, coſtly Pearls, Cotton, Tobacco, Cochineal, and other Drugs, *&c.* Here is one *Spaniſh* Archbiſhoprick, and five Biſhopricks. The Natives are moſtly Idolaters, but ſome are converted to *Chriſtianity*. They generally ſpeak the *Spaniſh* Tongue.

Of the Country of the Amazons.

THE *LAND* of the *AMAZONS* is very little known; the Air is temperate, and the Soil fertile, ſo far as it is yet diſcover'd. There are on the Banks of the River *Amazone* about fifty Nations of fierce ſavage People, ſaid to eat human Fleſh. The Commodities are reckon'd Gold, Silver, Sugar, Ebony, Cocoa, Tobacco, *&c.* Their Religion is *Paganiſm*, and their Languages unknown.

Of Braſil.

BRASIL is divided into fourteen Captainries, *viz. Para, Maragnan, Siara, Rio Grande, Parabia, Tamaraca, Pernambuco, Seregippe, All Saints Bay, Los Ilheis, Porto-ſeguro, Spiritu-Santo, Rio-Janeiro, St. Vincent.* The Air is very temperate and wholeſome, though in the *Torrid Zone*. The Soil is extraordinary fertile. The *Braſilians* are ſaid to be a cruel, thieviſh and revengeful People in general, but thoſe which are civilized prove ingenious. The Commodities are Red or Braſil Wood, Sugar, Amber, Roſin, Balm, Tobacco, Train Oil, Confectures, *&c.* The Natives have but a faint Notion of God or Religion; and tho' they have divers Languages, 'tis ſaid they can't pronounce the three Letters, L, F, R.

Of Paraguay.

PARAGUAY is divided into ſeven Provinces, *viz. Guayna, Paraguay Proper, Parana, Uraguay, Rio de la Plata, Tucuman, Chaco.* The Air is ſaid to be very temperate and healthful; the Soil very fertile in Corn, Wine and Fruits. The People are very big and tall, yet nimble and agile; they are ſaid to be leſs ſavage than many other *Indians*; laborious, and revengeful of Wrongs. The Commodities are Gold, Silver, Braſs, Iron, Sugar, Amethyſts, *&c.* Here is one *Spaniſh* Archbiſhoprick, and four or five Biſhopricks. The Religion of the Natives is groſs Idolatry, and their Language an harſh and unpleaſant Jargon.

Of Chili.

CHILI is divided into three Governments, *viz. Chili Proper, Chicuito*, and *Chili Imperial*. The Air

in *Summer* is very warm and temperate, but in *Winter* exceſſively ſharp and piercing. As to the Soil, the mountainous Parts are generally dry and barren, but the Valleys are exceeding fertile in Maize, Wheat, and other Grain. The People are white, tall, courageous and warlike. The Commodities are Gold, Silver, Maize, Corn, Honey, Oſtriches and Metals. The unconverted *Chilians* are the groſſeſt Idolaters of all the *Americans*, the chief Object of their Worſhip being the Devil, whom they call *Eponamon*, i. e. Powerful. Moſt of them uſe the *Spaniſh* Tongue, and ſome their antient Jargon.

HAVING thus given a ſuccinct Account of thoſe Parts of the four Continents which are known, I paſs over the unknown Parts to the principal Iſlands, Mountains, *&c.*

ISLANDS of *EUROPE.*

Of the European Iſlands.

THE Principal of theſe are, (1.) The *Britannic* Iſles, *Great Britain* and *Ireland*; with the leſſer ones of *Man*, *Angleſey*, *Wight*, *Jerſey*, *Guernſey*, *Alderney*, &c. and the Cluſters of Iſlands call'd the *Orcades*, the *Shetland*, and the *Hebrides*. (2.) The *Scandinavian* Iſlands, or thoſe belonging to *Sweden*, *Denmark* and *Norway*; as *Gothland*, *Zealand*, *Funen*, &c. (3.) *Iceland*, a large Iſland, ſubject to the Crown of *Denmark*. (4.) The *Azores*, which are in Number nine, poſſeſſed and inhabited by the *Portugueze*. (5.) The *Mediterranean* Iſlands, *viz. Yvica*, *Majorca*, *Minorca*, *Sardinia*, *Corſica*, *Sicily*, *Malta*, *Crete* or *Candia*, *Cyprus*, &c. (6.) The numerous Iſles in the *Archipelago*, the *Ionian Sea*, &c. moſt of which are ſubject to the *Turk*.

ISLANDS of *ASIA.*

Of the Iſles of Africa.

THESE are (1) The Iſles of *Japan*; as the famous Iſle of *Japan* itſelf, *Tonſa*, and *Bungo*, &c. (2.) The Iſle of *Formoſa* lying near the middle *Eaſtern* Coaſt of *China*. (3.) The *Philippine* Iſles; as *Luconia*, *Mindanao*, *Tendaye*, with ſeveral ſmall ones. (4.) The *Moluccoes*; the chief whereof are *Gilolo*, *Ceram*, *Celebes*. (5.) The Iſlands *Des Larrons*, or of Thieves.

(6.) The

(6.) The *Sunda* Iſlands, the chief of which are *Borneo*, *Sumatra* and *Java*. (7.) The *Maldives*, a Cluſter of very ſmall Iſles in the *Indian* Sea. (8.) *Ceylon*, a famous Iſle near *Cape Comorin*, in the *Indian* Sea, abounding in moſt ſorts of Spices.

ISLANDS of AFRICA.

Of the Iſles of Africa.

THESE are (1.) *Madagaſcar*, the largeſt and moſt conſiderable of all, lying off the *Eaſt* Coaſt of *Ethiopia*. (2.) The Iſlands of *Cape Verde*, which are ten in Number, and ſituate to the *Weſt* of *Negroland*. (3.) The *Canary* Iſlands; which are fourteen in Number, among which are the noted Iſles of *Teneriff*, *Ferro* and *Canaria*; theſe lie near the Coaſt of *Bildulgerid*. (4.) *Madera*, noted for its excellent Wine: It is ſituated over-againſt the Kingdom of *Fez* in *Barbary*. (5.) *St. Helena*, *Aſcenſion* Iſle, *St. Thomas*, *Zocotora*, and divers other ſmall ones up and down in the *Atlantic* and *Indian* Oceans.

ISLANDS of AMERICA.

Of the Iſles of America.

THESE are (1.) *California*, the largeſt Iſland in the World, lying Weſt of *New Mexico*, in the great *South Sea*. (2.) *New-found-Land*, a very large Iſland, in the Poſſeſſion of the *Engliſh*; it lies before St. *Laurens Bay*, in *North* Latitude 50 Degrees. (3.) The *Antilles*, which contain many ſingle Iſlands very conſiderable, as *Cuba*, *Hiſpaniola*, *Porto-Rico*, belonging to *Spain*, and *Jamaica* to the *Engliſh*. They alſo comprehend ſeveral Cluſters of ſmall Iſlands; as (4.) The *Caribbee* Iſles; the Chief of which are *St. Chriſtopher's*, *Antego*, *Monſerrat*, *Barbadoes*, &c. (5.) The *Lucayos* Iſles, moſtly belonging to the *Spaniards*. (6.) The *Sotovento* Iſles, lying along the *North* Coaſt of *Terra Firma*, and belonging to the *Spaniards*. (7.) *Bermudas*, or the *Summer* Iſlands, belonging to the Crown of *England*. (8.) *Terra del Fuego*; this is an Iſland ſeparated from the moſt *Southern* Parts of *America* by the Streights of *Magellan*; and of which our Knowledge is very uncertain.

MOUNTAINS.

Of the chief Mountains in the World.

OF *MOUNTAINS*, ſome are extended to a vaſt Length, and riſe very high, and are call'd *Ridges* or *Chains* of *Mountains*; the chief whereof are (1.) The *Dolphrino* Hills between *Sweden* and *Norway*. (2.) The *Hyperborean* Mountains in the *North* Part of *Muſcovy*. (3.) The *Caparthian* Mountains in the *South* Part of *Poland*. (4.) The *Pyrenæan* Hills between *Spain* and *France*. (5.) The *Alps* between *Italy*, and *France* and *Germany*. (6.) The *Apennine* Hills, dividing *Italy* into *Eaſt* and *Weſt*. (7.) Mount *Taurus*, reaching from *Eaſt* to *Weſt* of all *Aſia*. (8.) *Imaus*, in *Tartary*. (9.) *Caucaſus*, between *Tartary* and the *Mogul*'s Empire. (10.) The *Libyan* Mount between *Zaara* and *Egypt*. (11.) Mount *Atlas*, between *Barbary* and *Biledulgerid*. (12.) The *Mountains of the Moon*, in *Ethiopia*. (13.) The *Andes*, extending *North* and *South* thro' the whole Length of *South America*.

OTHERS are ſingle, and remarkable for their exceeding Height, as the *Pike* in *Teneriff*, &c. But others are ſtill more remarkable for being *Vulcano's*, or ſuch as have terrible Eruptions of Fire, Coals, Smoak, &c. As *Ætna* in *Sicily*; *Veſuvius* in *Naples*; *Hecla* in *Iceland*; with many others in ſeveral Iſlands and Parts in the *Torrid Zone*.

OCEANS.

Of the Oceans.

THE mighty Body of Waters which overwhelms, by far, the greateſt Part of the Earth's Surface, is divided into ſeveral *Oceans*, viz. (1.) The *Hyperborean* on the *North*; and, (2.) The vaſt *Weſtern Ocean*, on the *Weſt* of *Europe*. (3.) The *Tartarian* and *Chineſian* Oceans on the *North* and *Eaſt*; and, (4.) The *Indian*, and Part of the vaſt *Southern* Ocean, on the *South* of *Aſia*. (5.) The *Ethiopic* and *Atlantic* Ocean, and Part of *Mer del Zur*, on the *Weſt* and *South* of *Africa*. (6.) The vaſt *Oriental* Ocean on the *Eaſt*. And, (7.) The great *Pacific* Ocean on the *Weſt* of *America*.

SEAS

SEAS.

Of *SEAS* (properly so call'd) there are but four; *Of the Seas.*
viz. The *Mediterranean* Sea, included between *Europe* on the *North*, and *Barbary* and *Egypt* on the *South*, and Part of *Asia* on the *East* and *North East*. (2.) The *Baltic Sea*, inclosed with *Sweden* on the *West*, *Lapland* on the *North*, Part of *Poland* on the *East*, and Part of *Germany* on the *South*. (3.) The *German* Sea, inclosed with *Great Britain* on the *West*, and *Scandinavia* on the *East*. (4.) The *Irish* Sea, or rather *Streights*, or *Channel*, between *Ireland* and *Great Britain*. (5.) The *Euxine* Sea, inclosed with Part of *Europe* on the *North* and *West*, and Part of *Asia* on the *South* and *East*. (6.) The *Caspian* Sea, or rather the *greatest Lake* in the World, as being entirely furrounded with Land on the Continent of *Asia*. All other Seas befides these are but Parts of the *Oceans*.

As for *GULPHS*, *STREIGHTS*, *LAKES*, *RIVERS* and *BAYS*, they are so numerous, and of so little Importance in a bare Rehearsal of their Names, that the Reader can expect to find a distinct Account of them only in larger Treatises on this Subject.

Of CHRONOLOGY, *or the* DOCTRINE *of* TIME.

Chronology defined.

CHRONOLOGY is a *Science* which has for its Subject the *Doctrine of Time*. Or, it is a *Diſcipline* which is converſant about the Nature, Properties, Parts, and Uſe of Time, in a *Civil* Senſe.

The Nature of Time defined.

The Idea thereof.

Of Abſolute and relative Time.

THE Nature of *Time* is of a *Phyſical* Conſideration; and therefore *Time* is defined to be *the Duration of Things*; and the *Parts* of *Time the Intervals of Succeſſion of Phænomena*; and the *Idea* we have thereof conſiſts in the Order of ſucceſſive *Perceptions*. This Definition agrees to *Time abſolutely* conſider'd; but *Time* in a *relative* Senſe, is that which is meaſur'd or eſtimated by certain *Motions*, either equal, as *Clocks*, *Watches*, &c. or unequal, as of the *Sun* or other *Heavenly Bodies*; and this is otherwiſe call'd *apparent* or *vulgar Time*.

Of the Parts of Time.

THE Parts of *Time* in uſe among us are *Minutes*, *Hours*, *Days*, *Weeks*, *Months*, *Years*, *Ages*, *Cycles*, and *Periods*. A View and Explanation of the Nature and Uſes of theſe make the firſt Part of this curious and excellent Science of *Chronology*.

The true Method of treating of Time.

IT appears to me to be a prepoſterous Method of treating the *Doctrine of Time*, to begin with *Minutes*, *Hours*, &c. and not (as the Nature of the Thing requires) with *that Meaſure* of *Time*, which is the *Original* and *Standard* on which the reſt depend; or the *Whole*, of which the others are but *Parts* and *Subdiviſions*.

A Year defin'd.

THIS *Original*, *Standard*, or *Integral Meaſure* of *Time*, then, is that we call a *Year*. A *Year* is the *Space, or Part of Time, or Duration meaſured by one entire*

entire Revolution of ſome celeſtial Body in its Orb, viz. *the Sun* or *Moon*.

THAT which is meaſured out by the Revolution of the Sun in the *Ecliptic*, is call'd the *Solar Year*; and this is properly the *Natural* or *Tropical Year*, which contains 365 Days, 5 Hours, 48′. and 57″. *Of the Solar Tropical Year.*

BUT the *Space of Time* in which the *Sun* departing from any *fixed Star*, comes to it again, is call'd the *Sydereal Year*, which contains 365 Days, 6 Hours, 9′. 14″. *Of the Solar Sydereal Year.*

THE *Lunar Year*, is the *Space of Time*, in which the *Moon* performs 12 compleat Revolutions about the Earth, call'd *Lunations*; and contains 354 Days, 8 Hours, 48′. 38″. *Of the Lunar Year.*

YEARS are diſtributed into *Aſtronomical* and *Civil*; the *Aſtronomical Year* is that which reſults from, or depends on the *Principles* of *Aſtronomy*: Such are thoſe above deſcribed. For the *Tropical Year* depends on one of the Cardinal Points, *viz.* the *Equinox* or *Solſtice*; and the *Sydereal Year* on a *fixed Star*; and both on *Aſtronomical Obſervation* and *Calculation*. *Years Aſtronomical or Civil.*

THE *Civil Year* is that in common Uſe among the ſeveral Nations of the World; it is either *Solar* or *Lunar*. The *Civil Solar Year* is again either *Common* or *Biſſextile*. The *Common Year* is reckon'd to contain only 365 Days, the odd Hours and Minutes being here neglected. The *Biſſextile Year*, otherwiſe call'd *Leap-Year*, conſiſteth of 366 Days; the Day over and above the *Common Year* being call'd the *Intercalary* or *Biſſextile* Day. *The Civil Year, what. Common, and Biſſextile or Leap-Year.*

THIS *Intercalation* of a *Biſſextile Day* was firſt appointed by *Julius Cæſar*, to be made every fourth Year, to the end the *Civil Year* might keep pace with the *Tropical Year*. For the *ſix Hours*, whereby the *latter* exceeded the *former*, in four Years make a *whole Day*; which therefore was then added to the 23d Day of *February*, which was the *Sixth* of the Calends of *March* in the *Roman Calendar*. In this Year therefore they reckon'd that *ſixth Day twice* (in *Latin Bis ſextus Dies*) and thence came the Name *Biſſextile* for *Leap-Year*. But in our *Almanacks* we add that *Intercalary Day* at the End of the ſaid Month, every fourth Year. *The Original of the Biſſextile or Leap-Year.*

THE

Of the Civil Lunar Year.

THE *Civil Lunar Year* is *Common* or *Embolimic*. The Common Lunar Year conſiſts of 12 *Lunations*, which are finiſh'd in 354 Days, at the End of which the Year begins again. The *Embolimic Year* was that wherein a Month was intercalated, to adjuſt the *Lunar* to the *Solar Year*. This *Intercalation* or *Emboliſm* was uſed by the *Jews*, who went by the *Lunar Motions* in their Accounts.

Common and Embolimic.

Of the Original of the Julian Year, or Old Style.

THE *Romans* alſo at firſt uſed this *Embolimic Lunar Year*, which was ſettled by *Romulus* their firſt King, and conſiſted only of ten Months, or 304 Days; and thus coming ſhort of the true *Lunar Year* by 50 Days, and of the *Solar Year* by 61, this Year became vague and unfix'd: Which *Numa Pompilius*, the ſecond King, obſerving, added two other Months, *January* and *February*, and thereby made the Year conſiſt of 12 Months, or 355 Days. But this Improvement not being ſufficient to adequate the Year to the Motion of the *Sun* or *Moon*, and keep the *Seaſons even* and *ſteady*, *Julius Cæſar* inſtituted the *Civil Solar Year*, by adding 10 Days to every common Year of *Numa's*, and one Day extraordinary to every fourth Year, as aforeſaid. This therefore was ever ſince call'd the *Julian Year* or *Account*, and *Old Style*, which is ſtill uſed by us in *England*, and by all *Proteſtant Countries*, except thoſe of *Holland* and *Germany*.

Of the Original of the Gregorian *Year, or New Style.*

BUT ſince the *Julian Year* of 365 Days and 6 Hours exceeds the true *Solar Year* by 11 Minutes, this Exceſs in 131 Years amounts to *one Day*; and in the Time of Pope *Gregory* XIII. was grown into 10 Days. The *Nicene* Council *A. D.* 325. having fix'd *Eaſter* to the next *Sunday* after the *Full Moon*, which came next after the *Vernal Equinox*, which was then on the 20th of *March*, it happen'd that in the Year of our Lord 1582 Pope *Gregory* obſerv'd, that the ſaid Fault of the *Julian Year* had caſt the *Equinoxes* 10 Days, and the *Full Moons* 4 Days more backward, than they were at the Time of the ſaid Council; *viz.* to the 11th of *March*, and 1ſt of *April*. Thus the Feaſt of *Eaſter*, and conſequently all other *Moveable Feaſts*, became unfix'd, and attended with great Diſorder. To remedy this, the Pope order'd 10 Days to be taken from *October* that Year,

Year, that thus the *Equinox* might be reduced to the 21ſt of *March*; and to keep it there, order'd, that, ſince in the *Julian* Account every 100th Year is a *Biſſextile*, and ſo 4 in 400 Years, in the Ages to come, 3 of thoſe 4 *Leap-Years* ſhould be changed to common Years, and that only one 100th Year in every 4 Centuries ſhould conclude with a *Biſſextile*. This Correction adjuſts the Year and Seaſons near the Truth, and is call'd the *Gregorian Account*, or *New Style*, and is uſed by the *Papiſts* every where.

Of Months and the ſeveral Sorts.

THE firſt and principal Diviſion of the Year is into Parts we call *Months*; and theſe are of as many Kinds as are the Years of which they are Parts: *viz.* *Aſtronomical* and *Civil*. The *Aſtronomical Month*, which is alſo the *natural one*, is properly a *Lunar Month*, or the Space of Time in which the *Moon* runs thro' the *Zodiac*; and is either (1.) *Synodical*, call'd a *Lunation*; which is the Time contain'd between the *Moon*'s parting from the *Sun* at a *Conjunction*, and returning to him again; which is in 29 D. 12 H. 44'. 3". (2.) *Periodical Month*; which is the Space of Time wherein the *Moon* makes one compleat Revolution, or returns to the ſame Point of the *Zodiac* whence ſhe departed; this contains 27 D. 7 H. 43'. 8". (3.) The *Illuminative Month* is the Time between the Appearance of two *New Moons* next each other, or the Time a *Moon* is obſerv'd to *ſhine*; which is always variable.

Aſtronomical and Civil.

Lunar Synodical.

Periodical.

Illuminative.

THE *Solar Month* is improperly thus call'd, as being only the Space of Time in which the *Sun* runs thro' *one Sign* of the *Zodiac*: Which Months, one with another, contain each 30 D. 10 H. 29'. 5".

Civil Months are thoſe which are framed to ſerve the Uſes of civil Life; and are different in different Nations and Countries of the World. Theſe come very near the Quantity of *Aſtronomical Months*, both *Lunar* and *Solar*: Whence came the Diſtinction of *Civil Lunar* and *Civil Solar Months*. A *Civil Lunar Month* conſiſteth alternately of 29 and 30 Days thro' the Year. Thoſe of 29 Days were call'd *Cavi*, or *Hollow*; and thoſe of 30, *Pleni*, or *Full*. *Civil Solar Months* conſiſted alternately of 30 and 31 Days; except one of the 12, which every 4th Year was to have 30 Days, in other Years 29 only.

THE

THE *Names*, *Quantities*, &c. of the *Civil Months* used by several Nations to compose their Years or *Calendars*, may be seen in the following Tables.

N°	*Julian* Year.	Days
1	*January*	31
2	*February*	28
3	*March*	31
4	*April*	30
5	*May*	31
6	*June*	30
7	*July*	31
8	*August*	31
9	*September*	30
10	*October*	31
11	*November*	30
12	*December*	31
	Days in Year	365

This is a *Solar Year*, and there remains 5 Hours and 49 Minutes towards an *Intercalar Day* for *Bissextile*, or *Leap-Year*.

The ancient *Roman* Year.	Days
Januarius	29
Februarius	28
Martius	31
Aprilis	29
Maius	31
Junius	29
Quintilis	31
Sextilis	29
September	29
October	31
November	29
December	29
Days in Year	355

This was the Year which first began with *Martius*, till *Numa* added 2 more Months, *January* and *February*; and after *Julius Cæsar* added 10 Days to equate it with the *Solar Year*.

The ancient *Grecian* Year.	Days
Hecatombæon	29
Metagitnion	30
Bædromion	29
Mœmacterion	30
Pyanepsion	29
Posideon	30
Gamelion	29
Anthesterion	30
Elaphebolion	29
Munychion	30
Thargelion	29
Scirrhophorion	30
Days in Year	354

This is a *Lunar Year* used at *Athens*, and required 11 D. 5 H. 49′ to equate it with the *Solar Year*.

The

N°	The *Jewish* Civil Year.	Days	The *Syrian* Year.	Days	The *Arabic* and *Turkish* Year.	Days
1	*Tisri*	30	*Tishrin* I.	31	*Muharram*	30
2	*Marcheshoan*	29	*Tishrin* II.	30	*Saphar*	29
3	*Casleu*	30	*Canun* I.	31	*Rabia* I.	30
4	*Tebeth*	29	*Canun* II.	31	*Rabia* II.	29
5	*Shebat*	30	*Shabat*	28	*Jomada* I.	30
6	*Adar*	29	*Adar*	31	*Jomada* II.	29
7	*Nisan*	30	*Nisan*	30	*Rajab*	30
8	*Jiar*	29	*Aiyar*	31	*Shasban*	29
9	*Sivan*	30	*Haziram*	30	*Samadan*	30
10	*Tamuz*	29	*Tamuz*	31	*Shawal*	29
11	*Ab*	30	*Ab*	31	*Dulkaadah*	30
12	*Elul*	29	*Elul*	30	*Dulheggia*	29
	Days in Year	354	Days in Year	365	Days in Year	354
	In the *Embolimic* Year after *Adar* they add the Month *Ve-Adar* of 30 Days.		This is equal to our *Julian* Year.		This Year is Lunar, and the same with the *Grecian* and *Jewish* Year.	

N°	The *Persian* Year.	Days	The *Egyptian* Year.	Days	The *Ethiopian* Year.	Days
1	*Asrudiah Meh*	30	*Thoth*	30	*Mascaran*	30
2	*Ardibascht Meh*	30	*Paophi*	30	*Tykymt*	30
3	*Cardi Meh*	30	*Athyr*	30	*Hydar*	30
4	*Thir Meh*	30	*Chojac*	30	*Tyshas*	30
5	*Merded Meh*	30	*Tybi*	30	*Tyr*	30
6	*Schabarir Meh*	30	*Mechir*	30	*Jacatit*	30
7	*Mehar Meh*	30	*Phamenoth*	30	*Magabit*	30
8	*Aben Meh*	30	*Parmuthi*	30	*Mijazia*	30
9	*Adar Meh*	30	*Pachon*	30	*Ginbat*	30
10	*Di Meh*	30	*Pauni*	30	*Syne*	30
11	*Behen Meh*	30	*Ephiphi*	30	*Hamle*	30
12	*Affirer Meh*	30	*Mesori*	30	*Habase*	30
Embolism.	*Musteraka*	5	*Epagomenæ*	5	*Pagomen*	5
	Days in Year	365	Days in Year	365	Days in Year	365

The Diviſion of a Month into Weeks and Days.

A MONTH is divided into four Parts, which we call *Weeks*, and each *Week* is again made to conſiſt of ſeven Parts, call'd *Days*. Of theſe Months there are thirteen in a *Julian* Year, and one Day over; of *Weeks* there are fifty-two, and of *Days* three hundred and ſixty-five, as before obſerv'd.

Definition of a Day.

A DAY is either the *Space of Time* contain'd between the Moments of the Sun's *Riſing* and *Setting*, or in which he makes one *entire Revolution*. The firſt is call'd an *Artificial Day*; the latter a *Natural Day*, and by the *Greeks Nychthemeron*, becauſe it included the *Night* and *artificial Day* together.

Artificial and Natural.

Of Artificial Days.

THE *Artificial Day* is ever variable and unequal; for the Sun's Courſe being always *oblique* to the *Horizon*, and always varying, cauſeth that the Time of his Stay, or his *Duration* above the *Horizon*, which is the *artificial Day*, is ever variable and changing, and that in Reality for one half of the Year, or the Time the Sun is paſſing from one Solſtice to the other, increaſing or decreaſing. This is evident from the *Doctrine of the Sphere*.

Of Natural Days.

Aſtronomical or Civil.

THE *Natural Day* is either *Aſtronomical* or *Civil*: The *Aſtronomical Day* is the Time which flows between the Sun's leaving any *Meridian* and its Return to the ſame; that is, the Space of Time in which the Earth makes one Revolution about its *Axis*, which is twenty-four Hours, and the Time anſwering to the Degrees it hath deſcrib'd in its annual Orb during that Revolution. Now this additional Motion is always *unequal*, both becauſe of the *Obliquity* of the Plane of the *Ecliptic* to the Plane of the *Equator*, and alſo becauſe of the *Oval Figure* of the *Earth*'s Motion; but one time with another it is 59′ 8″ *per* Day, which is perform'd in 3′ 0″ 32‴. Therefore a *mean aſtronomical Day* conſiſts of 24 H. 3′ 0″ 32‴.

Aſtronomical Day unequal.

Its mean Meaſure.

Of the Civil Day.

THE *Civil Natural Day* is that which is meaſur'd out by the *equable Motion* of *Machines*, as *Clocks*, *Watches*, and other *Automata*. This is always *equal*, and contains 24 *Hours*.

The time when ſeveral Nations begin their Civil Day,

THE Beginning of this *Natural Civil Day* is various according to the different Uſage of People. The antient *Greeks*, *Jews*, *Bohemians*, *Sileſians*, with the modern *Italians*, and *Chineſe*, commence the Civil Day at Sun-ſet. The antient *Babylonians*, *Perſians*,

Perſians, *Syrians*, with the modern *Grecians*, &c. begin their Day from Sun-riſe. The *Auſonians*, *Egyptians*, *Romans*, with the modern *Engliſh*, *French*, *Dutch*, *Germans*, *Spaniards* and *Portugueſe*, at Midnight. And, laſtly, the *Umbrians*, and *Arabians*, with the modern *Aſtronomers*, begin their Day at Noon. But in this Affair you meet with ſome Uncertainty and Confuſion, in what relates to Antiquity.

Of Hours. Equal and unequal.

An *Hour* is the 24th Part of a Day; and are *equal* or *unequal*. *Equal Hours* are thoſe by which the whole Time of a *Civil Natural Day and Night* is divided into 24 equal Parts. *Unequal Hours* are thoſe by which the Time of an Artificial Day is divided into 12 Parts, and the Night into as many. Theſe are alſo call'd *Temporary* or *Planetary* Hours, on a ſuperſtitious Account not worth mentioning.

To reduce unequal to equal Hours.

The Hours of an *Aſtronomical Day*, or thoſe from Noon to Noon, are not preciſely equal, but the Difference is ſo ſmall that it is not worth minding, and makes no Error in Uſes of common Life. To reduce unequal Hours to equal ones, ſay; As 12 Hours is to the Space of an Artificial Day, ſo is one *equal* Hour to its correſpondent *unequal* one.

Various Denominations of Hours.

The Hours are denominated of the People who uſe them. Thus *Babylonian* Hours commence their Order from *Sun-riſing*; *Italian* Hours from *Sun-ſetting*; *Aſtronomical* Hours from *Noon* or *Mid-day*; and by ſome the unequal Hours are ſtiled *Jewiſh*, becauſe that Nation uſed them.

Of Minutes and Scruples.

An Hour is divided into 60 equal Parts, call'd *Minutes* or *Scruples*; and each *Minute* into 60 *Seconds*; theſe again into 60 *Thirds*, and ſo on. Theſe Diviſions are well enough known. But the *Jews*, *Chaldeans*, *Arabians*, and other *Eaſtern* People, divide the Hour into 1080 Scruples, becauſe there is no Number capable of ſo many *Diviſors* as this, which therefore they thought moſt fit for Uſe. But the Number 1080 is 18 times 60, and ſo one Minute contains 18 *Jewiſh Scruples*.

Of the Jewiſh, *&c. Scruples.*

Of the larger Times. A Luſtrum.

The larger Spaces of Time which have found Diſtinction among Mankind are (1.) A *Luſtrum*, which is a certain Space of Time antiently applied to Civil Uſes, as *Sacrificing*, *Taxations*, letting

Farms, &c. and though formerly it was reckon'd to consist of 5 Years, yet *Chronologers* do now repute it only as 4. (2.) *Seculum*, a Century or Space of 100 Years; though among the Antients they had a *natural Seculum*, which they reputed to be the longest Space of a Man's Life. (3.) *Ævum* an Age, a Space of Time indefinitely used for the Life or Age of a Man; sometimes for 100 Years; and sometimes for *Eternity*. (4.) The *Olympiad*, which was a Space of 4 Years, or 50 Months of 30 Days each. At the Expiration of each *Olympiad* the *Olympic* Games were celebrated near the City *Olympia* in Honour of *Jupiter Olympius*. The antient *Greeks* made all their Computations by the Years of the *Olympiads*.

Seculum.

Ævum.

Olympiads.

A Cycle, what.

A *CYCLE* is (in plain *English*) a *Circle* of *Years*, *Months*, *Days*, &c. Or, it is a perpetual *Round* or *Circulation* of any the same Parts of Time; so that the *last* continually returns upon and succeeds the *first*. Of *Cycles*, the following are of famous and frequent Use.

The Solar Cycle.

THE *Cycle of the Sun*, or *Solar Cycle*, is a *Circle* or *Revolution* of 28 Years. This Cycle receiv'd both its *Name* and *Origin* from the seven Letters of the *Alphabet* A, B, C, D, E, F, G, which were placed in the *Almanack* to denote the Days of the Week in Order, from the first to the seventh throughout the Year. Now because one of those seven Letters must necessarily stand against *Sunday*, or the *Lord's-Day*, it was wrote in the *Capital* Form, and was call'd the *Dominical Letter*, the other six being put into small Characters.

The Dominical Letters.

Of the Beginning of the Year in regard of the Days of the Week.

Now since a *Julian* Year contains 365 Days, if that Number be divided by seven, there will remain one Day: If there had been no Remainder, 'tis plain every Year would constantly begin on the same Day of the Week; but since one Day remains, 'tis as evident the Year must begin and end on the same Day of the Week, and therefore the next Year will begin on the Day following. For Instance, the Year 1737 began on a *Saturday*, and therefore will end on a *Saturday*, and the next Year 1738 will begin on a *Sunday*.

The Dominical Letters ſhift their Courſe in a retrograde Order.

If the firſt Day of *January* be on a *Sunday*, A will be the *Dominical* or *Sunday* Letter for that Year; then becauſe the next Year begins on *Monday*, the *Sunday* will fall on the ſeventh Day, to which is annexed the ſeventh Letter G, which therefore will be the *Dominical Letter* for all that Year: Alſo the next Year after will begin on *Tueſday*, and the *Sunday* will fall on the ſixth Day, therefore the ſixth Letter F will be the *Sunday* Letter for that Year. Whence 'tis plain the *Sunday* Letters will go in a retrograde Order thus, G, F, E, D, C, B, A. G, F, *&c.* And in the Courſe of ſeven Years (were they all common ones) the ſame *Days* of the *Week* and *Dominical Letters* would return to the ſame *Days* of the *Month*.

The Cycle of 7 inlarged to that of 28 Years by means of the Biſſextile *Year.*

But becauſe in a *Biſſextile* Year there are 366 Days, there will be 2 Days over and above the 52 Weeks; if that Year ſhould begin on a *Sunday*, it will end on a *Monday*, and the next Year would begin on a *Tueſday*, the firſt *Sunday* of which would fall on the ſixth of *January*, to which is annex'd the Letter F, and not G, as in common Years. By this means, the *Biſſextile* Year returning every fourth Year, the Order of *Dominical Letters* ſucceeding each other is interrupted, and the Series does not return to its *firſt State*, till after 4 times 7, or 28 Years; which Period of Time therefore is the *Cycle* of which we are diſcourſing, and when compleated the Days of the Month return in the ſame Order to the ſame Days of the Week.

Every Biſſextile *Year has two Dominical Letters.*

In every *Biſſextile* Year there are two *Dominical* Letters; the firſt of which takes place to the 24th or 25th of *February*; and the other the reſt of the Year. For in the *Biſſextile* Year thoſe *two* Days are reputed as *one*, and both of them have the ſame Letter F annex'd to them, and by this means the Order of the *Sunday* Letter is interrupted, and a different one henceforth takes place. For Example, the Year 1736 was a *Biſſextile* one, and in the Beginning the *Sunday* Letter was D; and the 22d being *Sunday*, it was the laſt Time this Letter officiated, for the next *Sabbath* was indicated by the Letter C, as thus appears by the Days and Letters of the laſt Week.

D.	e.	f.	f.	g.	a.	b.	C.
22,	23,	24,	25,	26,	27,	28,	29.

The Solar Cycle deficient.

THIS *Cycle* is not exactly true and juſt to the Motion of the *Sun*, as I have before obſerv'd; ſince the *Julian* Year does not contain quite 365 D. 6 H. for the Sun finiſhes his Courſe in 365 D. 5 H. 49′, and therefore begins again his Courſe or Round 11 Minutes before the Civil Year is ended. And thus every Year will begin 11 Minutes ſooner than by our Account. Hence, if at the Council of *Nice*, A. D. 325, the *Equinox* fell on the 21ſt of *March*, it would after 131 Years fall on the 20th, after 262 Years on the 19th; and thus, after 1310 Years, or *A. D.* 1635, it muſt fall on the 10th of *March*; which Pope *Gregory* XIII. obſerving *A. D.* 1582, made the *Correction* which I have before related; and this Reformation of the *Calendar* ought to be receiv'd wherever *Truth* and *Learning* find Regard.

A juſt Cycle of 7200 Years.

BUT even the *Gregorian* Emendation is not the ſtrict Truth; for the 11 Minutes in 400 Years make 3 D. 1 H. 20′. But the Pope neglected the 1 H. 20′, which in 18 times 400, or 7200 Years, makes a whole Day; and therefore no leſs a Cycle than of 7200 Years will reſtore the firſt Agreement between the *Calendar* and the *Solar Motions*.

To find the Year of the Solar Cycle.

THE ninth Year of the *Solar Cycle* was paſt when the firſt Year of the *Chriſtian* Computation commenc'd; therefore in order to find the Year of the Cycle for any Year of Chriſt, proceed thus. Add 9 to the given Year, and divide the Sum by 28; the Quotient ſhews the Number of *Cycles* that have revolv'd ſince the firſt Year of *Chriſt*, and the Remainder is the Year of the *Cycle*; but if there be no Remainder, the preſent Year is the 28th or laſt Year of the *Cycle*.

A Table ſhewing the ſame.

BUT this may be ſeen by Inſpection from henceforth to the Year 1800, in the following Table.

Sol. Cycle	Dom. Let. *English.*	Dom. Let. *Roman.*	Anno Domini			Sol. Cycle	Dom. Let. *English.*	Dom. Let. *Roman.*	Anno Domini		
1	G F	D C	1728	1756	1784	15	C	G	1742	1770	1798
2	E	B	29	57	85	16	B	F	43	71	99
3	D	A	30	58	86	17	A G	E D	44	72	1800
4	C	G	31	59	87	18	F	C	45	73	
5	B A	F E	32	60	88	19	E	B	46	74	
6	G	D	33	61	89	20	D	A	47	75	
7	F	C	34	62	90	21	C B	G F	48	76	
8	E	B	35	63	91	22	A	E	49	77	
9	D C	A G	36	64	92	23	G	D	50	78	
10	B	F	37	65	93	24	F	C	51	79	
11	A	E	38	66	94	25	E D	B A	52	80	
12	G	D	39	67	95	26	C	G	53	81	
13	F E	C B	40	68	96	27	B	F	54	82	
14	D	A	41	69	97	28	A	E	55	83	

THE *Metonic Cycle* is next in Consequence and Importance; it is thus call'd from its Inventor *Meton* or *Meto* an *Athenian*, who first publish'd it at *Athens* in the Year before *Christ* 432. He call'd it *Enneadecaeteris*, or *Cycle* of 19 Years, which we since call the *Lunar Cycle* or *Cycle* of the *Moon*; the Numbers of which being of excellent Use, were written in antient *Calendars* in *Letters* of Gold, whence they came to be call'd *Golden Numbers* and *Primes*.

Of the Lunar *or* Metonic *Cycle of* 19 *Years.*

Of the Primes or Golden Numbers.

THIS *Lunar Cycle* was invented to shew the *Changes* of the *Moon*, and the Time of *Easter* and other *moveable Feasts*; and that by means of those Numbers they call'd *Epacts*. These *Epacts* are (as their Name implies) *Added Numbers*; that is, a *Number* of Days *added* to the *Lunar Year*, to make it even or equal to the *Solar Year*.

The Use of the Cycle.

Epacts, what they are.

	D.	H.	′	″
The *Solar Year* contains	365	5	48	57
And the *Lunar Year*	364	8	48	38
The Difference is the *Epact*,	10	21	00	19

How the Epacts were reckon'd with the Primes.

Now as this Difference wants but 3 Hours of 11 Days, the Antients took no notice thereof, but made the *Epact* of the firſt Year of the *Cycle* 11 Days; whence the *Epact* of the ſecond Year would be 22 Days, the *Epact* of the third Year 33; but for each 30 Days they intercalated a *Month*, and reckon'd the odd 3 Days the *Epact* for that Year; and thus they proceeded by adding 11 Days, and intercalating a Month for every 30, till at the end of 19 Years, nothing remaining of the former *Epact* (which for the laſt, or 19th Year, is always 12) there began a *new* or *ſecond Revolution* of the *Epacts* and *Golden Numbers*. Here follows a Table of the *Golden Numbers* and *Epacts*.

A Table ſhewing the Golden Numbers and Epacts for every Year of the Cycle, till the Year 1800.

Gol. N°	Epacts.	Anno Domini				Gol. N°	Epacts.	Anno Domini.			
1	11	1729	1748	1767	1786	10	20	1738	1757	1776	1795
2	22	30	49	68	87	11	1	39	58	77	96
3	3	31	50	69	88	12	12	40	59	78	97
4	14	32	51	70	89	13	23	41	60	79	98
5	25	33	52	70	90	14	4	42	61	80	99
6	6	34	53	72	91	15	15	43	62	81	1800
7	17	35	54	73	92	16	26	44	63	82	
8	28	36	55	74	93	17	7	45	64	83	
9	9	37	56	75	94	18	18	46	65	84	
						19	00	47	66	85	

The Defect of the Cycle.

From the Table 'tis evident that in the Courſe of a *Cycle* there are 7 intercalary Months, *viz.* one in the 3d, 6th, 9th, 11th, 14th, 17th, and 19th Year of the *Cycle*. But notwithſtanding all their Care of *Epacts* and *Embolimic* Months, this *Cycle* is ſtill defective. For the *Epact* of 11 Days exceeds the true *Epact* of 10 D. 21 H. 11′, by 2 H. 49′, which in 19 Years make 2 Days 5 Hours. To equibalance this Exceſs, the 7 *Embolimic* Months were made to conſiſt of 30 Days each, which is more than the *Synodical Month* by 11 H. 15′ 57″. This Exceſs, multiplied by 7, makes 3 Days, 6 Hours, 31 Minutes. But this again over-balances the former Exceſs by 25 H. 31′; therefore by allowing 12 Days inſtead of 11 for the *Epact* of the laſt Year of the *Cycle* to anſwer this 25½ odd

odd Hours, 'tis plain the *Solar* Year will, at the end of the *Cycle*, be greater than the *Lunar Year*, by about 1 H. and 31'.

The Conſequence of it.

But though this Deficiency of the *Cycle* be ſmall, yet in Time it becomes very ſenſible; for by this Analogy 1½ H : 19 Y :: 28 H : 304 Years; 'tis plain, in the Space of 304 Years it amounts to one Day. Now the Council of *Nice*, A. D. 325, fitting this Cycle of the *Moon* to the *Calendar*, it did nearly enough, for ſome time, give the *New Moons*. But the *Lunations* in every 304 Years anticipating a whole Day, and ſince the ſaid Council have paſs'd 4½ times 304 Years, the *New Moons* happen ſooner by 4½ Days at this time by the Golden Number, than they really do in the Heavens. Yet notwithſtanding this, the *Church* of *England* (averſe to Alterations) retains this old erroneous way of computing the *Lunations*; and her *Doctors*, when they ſpeak of thoſe falſe and erroneous *new* and *full Moons*, to take off the *Odium*, refine the Expreſſion into *Eccleſiaſtical* ones.

To find the Golden Number for any Year of Chriſt.

In the firſt Year of *Chriſt*, the *Golden Number* was 2; therefore to the current Year of Chriſt add 1, and divide the Sum by 19; the *Remainder* (neglecting the *Quotient*) will be the *Golden Number* for that Year.

The Limits of Eaſter.

Since the Council of *Nice* hath fix'd the *Vernal Equinox* to the 21ſt of *March*, and appointed the firſt *Full Moon* which happens after it to be the Boundary of *Eaſter*, which is therefore call'd the *Paſchal Term*; and the earlieſt *Paſchal Term* being the 21ſt of *March*, and the next *Sunday* after being *Eaſter Day*, 'tis plain the *earlieſt Eaſter poſſible* is the 22d of *March*: And the 18th of *April* being the lateſt *Paſchal Term* that can happen, the ſeventh Day after, *viz.* the 25th of *April*, is the *lateſt Eaſter poſſible*, and ſuch it was in the Year 1736. Now within the Limits of the 22d of *March* and 25th of *April*, are 35 Days; the Number belonging to each of which is call'd the *Number of Direction*, becauſe by means of it the Times of *Eaſter*, and other *moveable Feaſts*, are aſcertain'd for any Year, as below is ſhewn.

Paſchal Term, what.

Number of Direction, what.

Golden Numb.	A	B	C	D	E	F	G
1	19	20	21	22	16	17	18
2	5	6	7	8	9	10	11
3	26	27	28	29	30	24	25
4	19	13	14	15	16	17	18
5	5	6	7	8	2	3	4
6	26	27	21	22	23	24	25
7	12	13	14	15	16	10	11
8	33	34	35	29	30	31	32
9	19	20	21	22	23	24	18
10	5	6	7	8	9	10	4
11	26	27	28	29	30	31	32
12	19	20	21	15	16	17	18
13	5	6	7	8	9	10	4
14	26	27	28	29	23	24	25
15	12	13	14	15	16	17	18
16	5	6	7	1	2	3	4
17	26	20	21	22	23	24	25
18	12	13	14	15	9	10	11
19	33	34	28	29	30	31	32

To find the Number of Direction.

To find the *Number* of *Direction* for any given Year of *Chriſt*, find the *Golden Number* and *Dominical Letter* for the ſame, which obſerve in the Table adjoin'd, the firſt in the firſt Column, the other at the Top, and in the Place of Meeting you have the Number of Direction.

Example for the Year 1736.

THUS for the Year of our Lord 1736, the *Golden Number* is 8, and the *Dominical Letter* (after *February*) is C; then againſt 8 in the ſide Column, and under C is 35, the *Number of Direction* requir'd.

How to find Eaſter.

THEN to find *Eaſter*, add the Number of Direction to the 21ſt of *March*; if the Sum be under 32, it is the Day of *March*; if above 31, ſubduct 31 from it, the Remainder is the Day of *April*, on which *Eaſter* Sunday will fall that Year for which you uſe the Number of Direction. Thus in the Year 1736, the Number of Direction 35 added to 21 makes 56, from which ſubſtract 31, there remains 25, the Day of *April* on which *Eaſter* Sunday then happen'd. Again, in the Year 1738, the Golden Number is 10, the

the Dominical Letter is A; and ſo the Number of Direction 5, which added to 21 makes 26, the Day of *March* on which *Eaſter* did then fall.

HAVING found *Eaſter*, the other *moveable Feaſts* are found by the Verſes following: *Of the Moveable Feaſts.*

The *Sunday* next the Feaſt of St. *Andrew*
The *Advent* of our bleſſed Lord doth ſhew.
Th' unſtated Feaſt *Septuageſima*
Nine Weeks 'fore *Eaſter* ſtands by *Paſchal* Law.
The *Sunday Sexageſima* we call
Does juſt eight Weeks 'fore *Eaſter Sunday* fall.
Next * *Quinquageſima* by ſeven Weeks
Precedes, and † *Quadrageſima* by ſix.
Five after *Eaſter* we *Rogation* find;
And five Days thence ‡ *Aſcenſion* is aſſign'd.
The ſev'nth from *Eaſter* is ‖ *Whitſunday* Feaſt;
On *Trinity-Day*, at eight Weeks end, we reſt.

* *Shrove-Sunday.*
† *Firſt Lent Sunday.*
‡ *Holy Thurſday.*
‖ *Deſcent of the Holy Ghoſt.*

BY means of the *Epacts*, the Age of the Moon is thus found. Add the *Epact* of the given Year, the Day of the Month, and the Number of Months from *March* to the given *Month* incluſively; and the Sum, if under 30, is the Moon's Age; if above, deduct 30 or 60, the Remainder is the Age ſought. Note, the *Epact* of the old Year muſt be uſed till the firſt of *March*. *Example*; I would know the Moon's Age *May* the 12th, 1736; the *Epact* is 28, then the Sum of 28 and 3 and 12 is 43; ſubduct 30, the Remainder ſhews the Moon to be then 13 Days old; wherefore on the 14th of *May* will be the *Full Moon*; and 15th before, *viz.* 29th of *April*, the *Moon* chang'd. *To find the Age and Phaſes of the Moon.*

To find the Time of the *Moon's Southing*, multiply her Age by 4, and divide that Product by 5, the Quotient is the Hour; and multiply the Remainder by 12 for Minutes. Thus in the foregoing Example, her Age is 13, which multiplied by 4 is 52; this divided by 5 quotes 10, the Hour at Night of her *Southing*; and the Remainder 2 by 12 gives 24 Minutes after 10, according to the mean Motion. *To find the Moon's Southing.*

FROM the Cycles of the *Sun* and *Moon* multiplied into one another ariſes another Cycle or Period of 532 Years (for 28 by 19 gives 532,) which was invented by *Victorius* a Presbyter of *Limoges* in *Aquitain*, by or- *Of the* Victorian *Period.*

der of *Hilary* Bishop of *Rome*, and is therefore call'd the *Victorian Period*; after the Expiration of which he supposed all the New and Full Moons, the same Times of *Easter*, and the same Dominical Letters would all come over again in the same Order of Time as in the former Cycle, and so on in all following Cycles for ever. This was finish'd and first publish'd in the Year of our Lord 457. Afterwards, in the Year 527, *Dionysius Exiguus*, a *Roman* Abbot, corrected it in some Particulars, and it was call'd the *Dionysian Period* from him; as also the *Great Paschal*, because the *Western* Churches went by it for many Ages, till Pope *Gregory* XIII. new model'd it, as before related.

The Dionysian *Period.*

Great Paschal.

To find the Year of the Dionysian *Period.*

To find the Year of the *Dionysian Period* for any given Year of Christ, to the current Year add 457, and divide the Sum by 532, what remains is the Year of the Period sought. Example; to the Year 1736 add 457, the Sum is 2193, which divided by 532, the Quotient is 4, and the Remainder is 65, the Year current of the *Dionysian Period*.

Of the Calippic *Period.*

THERE is another Period of 76 Years, invented by *Calippus Cyzicenus* of *Mysia*, and therefore call'd the *Calippic Period*. He supposed the Excess of the *Solar* Year above the *Lunar* at the End of the *Metonic Cycle* of 19 Years, would in the Course of 4 of those Cycles, or 76 Years, amount to a whole Day, and so cast away a Day in every such Period of 76 Years. But herein he was greatly deceiv'd, for the Excess of the *Solar* above the *Lunar* Year in one Cycle is but 1 ½ Hour, and therefore in 4 Cycles, or 76 Years, could amount to but 6 Hours instead of 24. Wherefore the Error of this Period is a Deficiency of 18 Hours nearly.

Its Defect.

Of Hipparchus's *Period.*

THIS gave Occasion afterwards to *Hipparchus* of *Nicæa* in *Bithynia* to make a new Correction of the *Metonic Cycle*; for he observing that the *Calippic Period* was laid too great by a Quarter of a Day in the *Solar Motions*, he multiplied it by 4, which produced a new Period of 304 Years; and therefore in every 304 Years he deducted a whole Day, that the Moon might come again to the old Place in the Calendar. And this was very near the Truth, and much the same with the *Gregorian* Correction, or New Stile, made many Ages after.

THE

THE *Romans* made uſe of a Cycle, call'd the *Cycle of Indiction*, which had no Relation to the *Celeſtial Motions*, but was uſed for *Civil Purpoſes*, the chief of which was to *indicate* or make known the Time of certain Payments made by the *Roman* Subjects to the *Republic*. It conſiſted of 3 *Luſtrums*, or 15 Years; and was eſtabliſh'd by *Conſtantine*, A. D. 312, in the room of the *Greek Olympiads*. To find the Year of this Cycle, ſubſtract 312 from the given Year of Chriſt, and divide the Remainder by 15; and neglecting the Quotient, what remains is the Year of the *Indication* ſought. *Of the Cycle of Indiction.* *To find the Year thereof.*

FROM the Multiplication of the Cycles of the *Sun*, *Moon*, and *Indication* ariſes the famous *Period*, call'd the *Julian Period* from *Julius Scaliger* the reputed Author thereof. This *Period* conſiſts of 7980 Years, (for 28 by 19 gives 532; and that by 15 gives 7980.) This Period had its Beginning fix'd to the 764th Year before the Creation, and is not yet compleated; and therefore comprehends all other *Cycles*, *Periods*, and *Epochas*, and the Times of all *memorable Actions* and *Hiſtories*. There is but one Year in the whole Period that has the ſame Numbers for the three Cycles of which it is made up: And therefore if Hiſtorians had remark'd in their Annals the Years of the reſpective Cycles, there had been no Diſpute about the Time of any Action. *Of the* Julian *Period.*

THE firſt Year of Chriſt was the 4714th Year of the *Julian Period*; and therefore if to the current Year of *Chriſt* we add 4713, the Sum will be the Year of the *Julian Period*. So the Year 1736 will be found to be the 6449th Year of the ſaid Period. *To find the Year thereof.*

THERE is another call'd the *Conſtantinopolitan Period*, which is of the ſame Length or Number of Years as the *Julian Period*, viz. 7980; but it neither begins at the ſame time, nor have the Cycles of the Sun and Moon the ſame Situation in both; for the firſt Year of the *Solar Cycle* in the *Julian*, is the 12th in this; and the firſt of the *Lunar* is the 17th here; the Cycle of Indiction is the ſame for the moſt part in both. This Period is uſed by the *Greeks*, as the *Julian* is by the *Latins*, or *Roman* Hiſtorians. *Of the* Conſtantinopolitan *Period.*

EPOCHA or *ÆRA* is a certain Term or fix'd Point of Time, made famous by ſome memorable Accident; *Of Epocha's or Æra's.*

cident; from which, as from a Root, we make our Calculations and Computations of Time; and all remarkable Actions are disposed and recorded according to the Series of Years which follow from such a Root or *Epocha*. The principal *Æra's* are those of the *Creation*, of the *Olympiads* among the *Greeks*, of the *Building of Rome*; that of *Nabonassar*, the Death of *Alexander*, the *Abyssine Æra* of *Martyrs*, the *Arabian Hegira*, the *Persian Jesdegird*, the most famous *Æra* of the *Birth of* CHRIST; and that which contains them all, the *Julian Period*, above explain'd. All these *Epocha's* and *Æra's*, together with several others of less Note, have, in the following Table, their Beginnings reduced or fixed to the Years of the *Julian* Period, the Creation of the World, and to the Years before and after CHRIST.

		Jul. Per.	A. M.	*ante* C.
1	The Creation of the World, after the *Jews*	952	1	3760
2	The common Epocha of the Creation	765	1	3950
3	The same by the *Greek* Emperors	787	1	3926
4	The same in Mr. *Bedford's Scripture Chronology*	706	1	4007
5	The Deluge, or *Noah's* Flood	2362	1657	2351
6	The *Assyrian* Monarchy by *Nimrod*	2665	1960	2048
7	The Birth of *Abraham*	2714	2009	1999
8	The *Israelites* 400 Years Servitude in *Egypt*	2819	2114	1894
9	The Kingdom of *Argos* founded by *Inachus*	2857	2152	1856
10	The Kingdom of *Athens* founded by *Cecrops*	3157	2452	1556
11	The *Israelites* Departure out of *Egypt*	3219	2514	1494
12	Their Entrance into *Canaan*, or the Jubilee	3258	2553	1533
13	The Destruction of *Troy*	3530	2825	1183
14	The first Sabbatical Year	3260	2557	1451
15	The *Jewish* High-Priesthood	3300	2603	1405
16	King *David's* Reign	3646	2941	1067
17	The Foundation of *Solomon's* Temple	3698	2993	1015
18	The Epocha of *Nabonassar*	3966	3261	747
19	The Olympiads	3938	3233	775
20	The Building of *Rome*	3962	3257	751
21	The Destruction of the Kingdom of *Israel*	3992	3287	721
22	The *Babylonish* Captivity	4108	3302	606
23	The Destruction of *Solomon's* Temple	4126	3421	587
24	*Cyrus* the Founder of the *Persian* Monarchy	4178	3472	536
25	The Battle at *Marathon*	4223	3517	491
26	*Xerxes's* Defeat at the Battle of *Salamis*	4234	3528	480
27	*Meto* began his Cycle	4282	3576	432
28	The Beginning of the *Peloponesian* War	4283	3577	431
29	*Daniel's* Seventy Weeks of Years began	4269	3564	444

		Jul. Per.	A. M.	*ante* C.
30	The Beginning of the *Calippick* Period	4383	3677	331
31	The Death of *Alexander*	4390	3684	324
32	The *Grecian* Epocha of the *Seleucidæ*	4401	3695	312
33	The Æra of the *Asmonæans* or *Maccabees*	4548	3841	166
34	The *Antiochean* Epocha	4665	3958	49
35	The Correction of the Calendar by *Julius Cæsar*	4669	3962	45
36	The Beginning of the Reign of *Herod*	4677	3970	37
37	The *Spanish* Æra	4676	3969	38
38	The Battle at *Actium*	4683	3976	31
39	The Epocha of the Title of *Augustus*	4687	3980	27
40	The true Birth of CHRIST	4710	4005	4
41	The Vulgar or *Dionysian* Year of Christ's Birth	4714	4009	*A. C.*
42	The Passion or Death of Christ	4746	4041	33
43	The Destruction of the City of *Jerusalem*	4783	4078	70
44	The *Diocletian* or Æra of Martyrs	4997	4292	284
45	The Epocha of *Constantine the Great*	5019	4314	306
46	The Council of *Nice*	5038	4333	325
47	The Enccenia of *Constantinople*	5043	4338	330
48	The Epocha of the *Hegira*	5335	4610	622
49	The Epocha of *Yesdejerd*	5345	4620	632
50	The *Jellalæan* or *Gelalæan* Epocha	5792	5069	1079
51	The Epocha of the REFORMATION	6230	5503	1517

Of HISTORY; *and the* ORIGINAL *of* NATIONS *and* KINGDOMS.

Historiography History, and Historiology defined.

HISTORIOGRAPHY is the Art or Method of *writing History*. *History* is a *Narration* or *Relation* of *Things*, *Actions*, and *Events*, just as they happen'd or were transacted, in an orderly Manner. And *Histioriology* is the *Doctrine* or *Knowledge* of *History* in general, as a *Science* taught and learnt.

The World and Mankind had their Original from God, according to Moſes's *Hiſtory.*

THE *World* (the *grand Theatre* of Action) had its *Original* as related by *Moſes*; who alſo at the ſame Time gives us the *Hiſtory* of the *Origin* of *Man*, and all other Things, which he poſitively aſſures us were the *Effects* of God's wonderful and omnific Power. The *ſacred Writings* therefore are the *firſt* and *moſt authentic Hiſtory* in being.

Arguments proving the Truth of the Moſaical Hiſtory.

BUT abſtracting from their unqueſtionable Authority, we may prove the Truth of their *Hiſtory* of the *Original* of *Mankind*, &c. by the following *indubitable Arguments*. (1.) The *Tradition* of all *Ages* and *Nations* aſcribes the *Original* of Mankind to *Creation*, or to Parents who were not *begotten in the common Way*, but created. (2.) *Obſervation* proves the *Increaſe* of People daily exceeds their *Decreaſe*; and that *Nations double* their People in about 360 Years or ſooner. (3.) The *gradual*, *ſlow* and *late Inventions* of *Arts* and *Sciences* confirm it; they all having had their *Riſe* within the Compaſs of 5 or 6000 Years. (4.) The *obſcure Original* of Nations, and the late *Inſtitutions* of *Laws* or *Governments*, of *War*, &c. plainly prove the ſame. (5.) The *Plantations* of moſt Parts of the World, and the *Diſcovery* of the *greateſt Part* of the *Earth*, is of *late Date*.

THE

THE *Moſaical Hiſtory* then being of *undoubted Truth*, we may ſafely depend on its *Account* of the *State* and *Events* of the *firſt* or *antediluvian* Ages of the World, for that only is the Source of all our Knowledge of that Kind. The Hiſtory of the *Antediluvian* World may be compriſed under the following Heads. (1.) The *Formation* of the *Earth* out of a *Chaos*, the *Creation* of *Light*, and, in ſhort, the whole *Structure* and *beautiful Order* of the *Solar Syſtem*. (2.) The *Formation* of Man, and Woman, and all other Creatures, by the immediate *Power* of God. (3.) The *original State* of the firſt Man and Woman, *Adam* and *Eve*, viz. *corporeal Nakedneſs*; perfect *Rectitude* of Mind; the *Rule* of their Conduct; the *Place* of their Dwelling; their *Employment*, &c. (4.) Their *Defection* from this original State of perfect Bliſs, by *tranſgreſſing* the *divine Command*, the *Rule* of *their Conduct*. (5.) Their *Degredation*, and *Subjection* to a *ſervile* and *miſerable State* of *Life* thereupon. (6.) The *Birth* of *Cain* and *Abel*; and the *Murder* of *Abel* by *Cain*; and the *Conſequences* thereof. (7.) The *Birth* of *Seth*, and the *Genealogy* of the *Patriarchs* from *Adam* to *Noah*; with the *Inventors* of *Mechanic Arts* and *Trades*. (8.) The univerſal *Corruption* of *Mankind* at the Time of *Noah*, the *Threatning* of the *Flood*, their *Impenitence* and *Incorrigibleneſs*, the *Building* of the *Ark* by *Noah*, and (9.) The total Deſtruction of the World by the threaten'd Deluge or Flood of Waters, with the *miraculous Manner* thereof. (10.) Laſtly, The *Preſervation* of *Noah* and his *Family*, with *ſome* of every Sort of *terreſtrial* Animals and Fowls in the *Ark*, for the *repleniſhing* the World anew. Theſe *great Events* are all diſtinctly related by the *Divine Hiſtorian*, in a *Style* perfectly *Sublime* and full of *Energy*.

The chief Heads of the Moſaical Hiſtory.

The Creation of the World.

Of Men and all Creatures.

Man's original State.

The Fall.

The Effects thereof.

Birth of Abel *and* Cain, *&c.*

The Genealogy of the Patriarchs.

The Corruption of the old World.

The Deluge.

The Preſervation of Noah, *&c.*

THE Earth being again render'd *habitable*, *Noah* returns out all Kinds of Creatures into the ſilent, wild, and deſolate Earth, there to propagate their *Species*, and ſtore it as before; while *Himſelf* and *Family* (the only Remains of the great *Shipwreck* of human Kind) betook themſelves to the *Cultivation* of the Earth afreſh, and repeopled it with *Inhabitants*, in the following Manner.

The Earth repeopled and repleniſhed.

THE

The Sons of Noah.

THE three Sons of *Noah* were *Shem*, *Ham*, and *Japhet*; and it is ſaid, that by the *Deſcendants* of *Japhet* were the *Iſles of the Gentiles divided*, or *inhabited*. By the *Iſles of the Gentiles*, the *Learned* ſay, is to be underſtood the *Countries* of *Leſſer Aſia*, and of *Europe*. Of the Sons of *Japhet*, the Family only of *Gomer* and *Javan* are mention'd. From *Gomer*, the antient *Galatians* were call'd *Gomerites*; and another *People* of this part of *Aſia* call'd *Cimmerii*: Moreover the Etymology of *Gomer* and *Phrygia* are alike, and *Phrygia* did antiently extend over a great Part of *North Aſia*; wherefore *Gomer* ſettled there. The firſt of *Gomer*'s Sons is *Aſhkenaz*, and in *Bithynia* there was the *Aſcanian Bay*, *Lake*, and *River*, and in *Troas* a City and Province both called *Aſcania*, and on the Coaſt the *Aſcanian* Iſles. Alſo *Aſcanius* was the Name of *Kings* and *great Men* in thoſe Parts; from all which (and more that might be ſaid) 'tis evident *Aſhkenaz* firſt ſettled in *Bithynia* and the *North-weſtern* Part of *Aſia*.

The Sons of Japhet. Gomer, *where ſeated.*

Of Gomer's *Sons.* Aſhkenaz *ſettled in* Bithynia.

Riphat *ſituated in* Paphlagonia *on the* Euxine *Coaſt.*

RIPHAT, the *ſecond* Son of *Gomer*, probably ſeated his Family in the Parts adjoining Eaſtward to the Plantations of *Aſhkenaz* on the *Euxine* Coaſt; for antiently the Inhabitants of *Paphlagonia* were call'd *Riphatæans* from *Riphat*. There was alſo a River call'd *Rhebæus*. Alſo *Pliny* here places a People call'd *Riphæi*, and another call'd *Arimphæi*; all which are evidently deriv'd from *Riphat*.

The Situation of Togarmah.

THE *third* and laſt Son of *Gomer* is *Togarmah*, whoſe Family was ſeated in the remaining moſt Eaſterly Part of the Nation of *Gomer*, on the *Euxine*. This ſeems evident from *Ezek.* xxxviii. 6. and xxvii. 14. and the *Trocini* of *Strabo*, who dwelt in the Confines of *Pontus* and *Cappadocia*; and by *Cicero* call'd the *Trogmi*, and *Trocmeni* by *Stephanus*, and ſtill plainer by the *Council* of *Chalcedon*, *Trocmades* or *Trogmades*.

The Colonies of Gomer *plant* Germany,

THESE Families of *Gomer* ſoon grew very numerous, and ſent divers *Colonies* into ſeveral Parts of *Europe*. The firſt ſettled at the Lake *Mæotis*, and ſo gave the Name of *Boſphorus Cimmerius* to the Streight between it and the *Euxine Sea*. Theſe in time ſpreading by *new Colonies* along the *Danube*, ſettled in the Country call'd from thence *Germany*, whoſe

whose antient Inhabitants were the *Cimbri*, so call'd of the *Cimmerians*. The *Germans* call themselves *Germen*, which is nearly the same as *Gemren* or *Gomren*; and the *Jews* to this Day call them nothing but *Ashkenazim*, or *Ashkenazites*.

and France.

FROM *Germany* they afterwards spread themselves into *Gaul* or *France*, where they were originally call'd *Gomerites*, then by the *Greeks Galatæ*, and at last *Gauls*. Also *Appian* assures us that the *Gauls* or *Celtæ* were otherwise call'd *Cimbri*.

and from thence our Isle of Great-Britain.

FROM the *Colonies* of *France* or *Germany* came the first Inhabitants of this our *Isle* of *Great-Britain*; for the *Welsh*, or antient *Britons*, call themselves to this Day *Kumero*, or *Cymro*, and *Kumeri*, and their Language *Kumeraeg*; all which plainly shew them deriv'd from the *Cimbri*; to whom also the *Saxons* and *Angles* were near Neighbours, and so of the same Stock; and consequently we their Descendants may easily derive ourselves from *Gomer*.

Of the Sons of Javan *and their Settlements.*

THE Sons of *JAVAN* were *Elisha*, *Tarshish*, *Kittim*, and *Dodanim*: These settled in the *Southern* Part of the *Lesser Asia*; and from *Javan* the Country *Ionia* took its Name; for the *Hebrew Javan* is in *Greek Ion* or *Iaon*; and as the antient *Greeks* were call'd *Ions* or *Iaones*, that is, *Ionians*, so the Country of *Greece* was call'd *Javan*, as in *Dan.* xi. 2. In those Parts we find several *Footsteps* of *Javan*'s Sons in *History*. Thus the chief Town of *Cilicia* was call'd *Tarsus*, and the Country itself *Tarshish* from his Son of that Name; see *Jon.* i. 3. From *Kittim* there was a Country call'd *Cetis*, and a People call'd *Cetii*: And from his Son *Elisha* descended the *Æolians*; as, lastly, from *Dodanim* the *Dorians*, and the Name of the Country *Doris*. From hence 'tis manifest that *Javan* and his Sons were the original Founders of the *Grecian Nation* and *People*.

Ionia *and the* Ionians *from* Javan.

Tarsus *in* Cilicia *from* Tarshish.

The Æolians *from* Elisha, *and* Dorians *from* Dodanim.

The Colonies of Javan's *Sons.*

As to the *Colonies* of *Javan*'s Sons, we may observe this in short, That the most considerable *Islands* between *Europe* and *Asia* fell to the Lot of *Elisha*'s Family; for they are call'd *the Isles of Elisha*, Ezek. xxvii. 7. and the Sea itself might be call'd *Hellespont*, as if it were *Elishpont*, or *Sea* of *Elisha*. The Descendants of *Elisha* passing over into *Europe*, were call'd *Hellenes*, and their Country *Hellas*, and afterwards

Hellespont, *whence so called.*

Hellas *and* Hellenes, *whence.*

wards *Greece*. The *Dodanim* are ſaid to ſend *Colonies* to the Iſle of *Rhodes*, *Sparta*, &c. and that the *Kittim* peopled *Macedonia*, *Cyprus*, *Italy*, &c. That the *Colonies* of *Tarſhiſh* came from *Cilicia* along the *Mediterranean* to *Spain*, and there fix'd; and uſing the Sea much, occaſioned it to be call'd the *Sea of Tarſhiſh*.

The Sea of Tarſhiſh, *what.*

Of Japhet's *other Sons.*

As to *Japhet*'s other Sons, *Magog*, *Madai*, *Tubal*, *Meſhech*, and *Tiras*, we have this Account of their Plantations and Settlements.

Meſhech *and his Deſcendants, where ſettled, in* Moſcovy.

MESHECH is ſaid to have join'd his Brother *Gomer* on the *Eaſt*, and ſettled his Family in *Cappadocia* and *Armenia*, and in time ſent Colonies into the Northern Parts of *Aſia*, and were there call'd the *Moſchi*; and from thence the City *Moſcow* and the Country *Moſcovy*. Thus the *Moſcovites* are the Deſcendants of *Meſhech*.

Tubal *the Father of the* Iberians *and* Ruſſians.

TUBAL planted North of *Meſhech*, between the *Euxine* and *Caſpian* Seas, and is affirmed to be the Father of the *Aſiatic Iberians*, call'd originally *Theobeli* from *Tubal*. 'Tis further ſuppoſed that the *Ruſſians* were at firſt a Colony of *Tubal*'s Family.

Magog *planted* Scythia *and* Georgia.

MAGOG is, by the Conſent of all the Learned, placed North of *Tubal*, and eſteemed the Father of the *Scythians* that dwelt on the Eaſt and North-eaſt of the *Euxine* Sea. Alſo it is ſuppoſed that by *Gog* (*Ezek.* xxxviii. 2.) is meant the *People*, and by *Magog* the *Land* of *Scythia*; and that from *Gog* came the Name *Gogarene*, and thence *Georgia*, a Part of this Tract ſo call'd at this Day.

Madai *the Father of the* Medes, *or rather of the* Macedonians,

MADAI is univerſally allow'd to have been the Father of the ancient *Medes*, and their Country from him call'd *Media*; but of late Mr. *Mede* has placed him in *Macedonia*, which was antiently call'd *Æmathia*, as if it were *Ai-mathia* or *Ai-madia*, i. e. *Land* of *Madai*. Alſo he imagines the Name *Macedonia* to be compounded of *Madai* and *Cetim*, whoſe Sons in time mingled together in thoſe Parts. The *Mœſians* in *Europe* are thought to be a Colony of this Family, as coming near to *Methians*; and that the *Sarmatians* might be ſo call'd, as if *Sar-Madai*, i. e. a *Remnant* of *Madai*, or *Madai's Poſterity*.

and of the Mœſians *in* Europe, *and* Sarmatians.

TIRAS,

TIRAS, the last Son of *Japhet*, was undoubtedly the Father of the *Thracians*, and from his Name *Tiras* or *Thiras* the Country was call'd *Thracia* or *Thrace*. But Mr. *Wells* says he first settled in *Lesser Asia*, in the Country from him call'd *Tras*, or *Troas*, or *Troy*; and the *Trojans* were his Descendants: Whence Colonies afterwards going into *Europe* were call'd *Thracians*, *&c.* as before; which is not only a very learned, but very reasonable Conjecture.

Tiras *the Father of the* Thracians, *but first of the* Trojans.

HAVING planted out *Japhet* and his Family, let us next see what became of *Shem* and his. The Sons of *Shem* were *Elam*, *Asshur*, *Arphaxad*, *Lud* and *Aram*.

The Sons of Shem.

I BEGIN with *Aram*, as next adjoining to the Nations of his Uncle *Japhet*. He possess'd the Country of *Asia*, call'd from him *Armenia*; also *Mesopotamia*, which in *Hebrew* is call'd *Aram-Naharaim*, or *Aram between the two Rivers*, viz. of *Euphrates* and *Tigris*. And in the Scripture the Word *Aram* is constantly render'd *Syria*. From his Son *Uz*, a Tract about *Damascus*, the *Stony* and *Desart Arabia*, &c. was call'd the *Land* of *Uz*; and the rest of his Family planted all *Armenia Major*.

Aram *planted* Armenia, Mesopotamia, *&c.*

ASHUR planted the Country call'd from him *Assyria*, and in the Eastern Tongues *Ashur*, without Variation. It originally contain'd that Country only, lying East of the *Tigris*, which the *Greeks* call'd *Adiabene*.

Asshur *the Founder of the Nation of* Assyria.

ELAM seated himself next to *Ashur* Eastward, and peopled the Country afterwards call'd *Persia*. For not only in the *Prophecies*, *Elam* and *Elamites* ever denoted *Persia* and the *Persians*, but in other Authors we find here a Country and City call'd *Elymais*, and a People call'd *Elymæi*, inhabiting on the *Persian* Gulph.

Elam *the Father of the* Persians.

ARPHAXAD is assign'd his Lot, by learned Men, in the most Southern Parts of *Mesopotamia*, where the Plain or Vale of *Shinar* lay on the *Tigris*, together with the Country of *Eden*, and the Tract call'd *Arrapathitis*, a Name plainly derived from his Name, in Hebrew *Arpachshad*; a good Part of all which was afterwards call'd *Chaldea*; and *Josephus* says the *Chaldeans* were originally call'd *Arphaxadeans*.

Arphaxad, *where he planted.*

'Tis uncertain where Lud *planted.*

As to *LUD* there is nothing certain; and having ſettled the reſt of the Sons of *Shem*, we proceed next to the *Plantations* of the Sons of *Ham*. The Sons of *Ham* were *Cuſh*, *Mizraim*, *Phut*, and *Canaan*.

Of Ham *and his Sons.*

THAT *HAM* and his Son *Mizraim* went and firſt ſettled in *Egypt* is manifeſt, ſince *Egypt* is twice or thrice, in the *Pſalms*, call'd the Land of *Ham*; and there was the *Temple* of *Jupiter Hammon* or *Ammon*, who was originally no other than *Ham*; and *Egypt* is evermore in the Scriptures call'd *Mizrajim*.

The Deſcendants of Mizraim: *The* Ludim, *The* Lehabim, *The* Naphtahim, *The* Pathruſim *The* Caphtorim,

THE Deſcendants of *Mizraim* were the *Budim*, who inhabited *Ethiopia:* The *Lehabim*, who poſſeſſed ancient *Libya* in *Africa:* The *Naphtahim*, who dwelt in that Part of *Libya* now call'd the Deſert of *Barca:* The *Pathruſim*, who dwelt in *Upper Egypt* or *Thebais*. The *Caphtorim* alſo had their Situation in a Part of the ſame Country, as is plain from the Name *Coptus*, an old City of *Egypt*; and the Chriſtians there are ſtill call'd *Cophtes:* And 'tis not unlikely that the Name *Egypt* might come from the ſame Source, it being call'd *Ægyptus* for *Ægophtus* or *Ai-Cophtus*, the *Land of Coptus* or the *Caphtorim*. From the *Caſluhim* ſprang the *Philiſtines*. What is ſaid of the *Anamim* is all uncertain.

The Caſluhim; *The* Anamim.

Cuſh *ſettled in* Arabia.

CUSH poſſeſs'd *Arabia*; and his Sons *Sebah*, *Havilah*, &c. ſeated themſelves in the ſeveral Parts thereof; from whom we read of the *Sabeans*, the *Land of Havilah*, &c.

Canaan *the Father of the* Canaanites.

CANAAN ſettled in the Country lying on the Eaſt and South-Eaſt of the *Mediterranean* Sea, and from him call'd the *Land of Canaan*, which was very populous with his Poſterity, the *Zidonians*, *Jebuſites*, *Emorites*, *Girgaſites*, &c. of which ſee *Gen.* x. 15-18. This was the Land afterwards promiſed to *Abraham*, which he and his Poſterity accordingly enjoy'd, and was then the *Land of Iſrael*, and *Judah*.

Phut, *where ſettled:* *In* Barbary.

PHUT is ſuppoſed to have taken up his Reſidence in the Weſtern Part of *Africa* on the *Mediterranean*, in the Country of *Mauritania*, (now *Morocco* and *Algiers*) for there are the Footſteps of his Name in *Putea* a City, and *Phut* a River; whence the Country was call'd the *Region of Phut*, in St. *Jerome*'s Time.

THESE

THESE are the *Plantations* of the Families of the Sons of *Noah* after their Generations in their Nations; and after this manner by these were the Nations divided in the Earth after the Flood. *Gen.* x. 32.

BUT tho' the Scripture gives us an ample Account of the Original of the different Nations, and People of *Europe*, *Asia*, and *Africa*, yet it speaks not one Word of *America*, and the *Origin* of the *Nations* therein. And not only *Moses*, but all other *Historians* are silent with regard to it; the Discovery thereof being never sufficiently made till these last Ages. *The Scripture says nothing of* America.

THE first who effectually discover'd it was one *CHRISTOPHER COLUMBUS*, or *Colon*, a *Genoese*, in a Voyage he undertook for that purpose by order of the *King of Spain*, A. D. 1492, and on *August* 2. On the 12th of *October* following he landed on the *Isle* which he call'd *St. Salvador*; and after this went on and made very great Discoveries on the Continent, as well as of many Islands; and return'd to *Spain* after seven Months and eleven Days. In 1502, *May* 9, he made a second Voyage to *America*, and enlarged his former Discoveries very much: At length he return'd, and meeting with ungrateful Usage, it hasten'd his Death, which happen'd *May* 20, 1506. America *was first discover'd by* Christopher Columbus. *At what Time.*

AMERICUS VESPUCIUS, a Native of *Florence*, made the next considerable Discoveries in two Voyages, the first of which he undertook *May* 20. 1497, and the other *May* 11. 1500. From him the whole Continent was call'd *America*; though *North America* is said to have been discover'd by one *Sebastian Cabot* or *Gabot*, but who he was, or of what Country, is not agreed; besides the Discoveries of several of the *Inland Countries*, &c. by various other Persons. *Farther discover'd by* Americus Vespucius, *who gave it the Name of* America.

UPON the Discovery of this Part of the World, it was found that every Part of the same was inhabited by the *Human Species*, as well as great Variety of *Beasts*, &c. But *how they should come here* is a Question difficult to solve, since it has no known Communication with either *Europe* or *Asia*. But yet many *modern Authors* and *Travellers* are of opinion that it is either join'd on the North Parts by Land, or separated by very narrow Streights from *Asia*; and *How and whence* America *was probably peopled.*

that therefore it was easy, and is very probable that this Part of the World might be peopled by *Colonies* from that, some three or four hundred Years after the Flood. 'Tis certain the *Phœnicians* had an early Acquaintance with the *Cassiterides*, the Islands now call'd the *Azores*, and from thence they might sail to *America*, as 'tis reasonably supposed large Colonies of *Scythians* and *Tartars* did over the Eastern Sea, and so peopled *America* on the West. But I leave these *Conjectures*, and pass to view the *State* of the more known Times of the World.

The Beginning of the Assyrian *Monarchy by* Nimrod.

THE Earth being divided among the *Sons* and *Descendants of Noah*, they soon began to form themselves into *Societies*, and to establish *Laws* and *Governments*, to make *Conquests*, and to aim at Rule, Power, and Empire. The first who began to signalize himself this way was *Nimrod* the Son of *Cush*, and Grandson of *Ham*; of whom *Moses* distinctly saith, *He began to be a mighty one upon the Earth.* He first alter'd *Paternal Government*, and usurp'd Dominion over others, and first invaded the Lot of *Arphaxad*, and made himself Master of the lower Part of the Land of *Shinar*; he there built the *City* and *Tower* of *Babil* or *Babylon*, and made it the Seat of his *Kingdom*; to which he added *Erech*, *Accad*, and *Calneh* in the same Land. He is said to have reign'd 63 or 65 Years. He was succeeded by his Son *Ninus*, who built *Nineveh*; and joining with the King of *Assyria*, they conquer'd *Armenia*, *Media*, and (in 17 Years) all *Asia*, besides the *Indians* and *Bactrians* under the Command of their famous King *Oxyartis*. He died after 52 Years Reign, and was succeeded by his Wife *Semiramis*, who wore a Man's Habit. She conquered *Ethiopia*, made War on the *Indians*, and was the most victorious of her Times. Her Son *Ninias* slew her after 42 Years, and succeeded. He is said to be the first who drew up Soldiers in Order of Battle, and to have 30 Successors in the Empire; of whom we know nothing, but that one *Tutamus* assisted *Priamus* King of *Troy* when besieged by the *Greeks*; and *Sardanapalus*, the last of them, who was the most voluptuous and effeminate Man in the World; and being besieged in *Nineveh*, at the End of two Years he erected a *Funeral Pile*, and burnt himself therein.

THIS

THIS ancient *Aſſyrian*, and firſt of Monarchies, having govern'd *Aſia* above 1300 Years, being diſſolved on the Death of *Sardanapalus*, there aroſe up *two other Empires* in its ſtead, the one founded by *Arbaces* (the Scripture *Tiglath-Pileſer*) Governor of *Media*, and the other by *Beleſis* (the ſame as *Nabonaſſar*) Governor of *Babylon*, theſe being the two principal Commanders that headed the Conſpiracy whereby the former Empire was brought to an End. Theſe having, on their Succeſs, divided the Empire between them, *Beleſis* (who in Scripture is call'd *Baladan*) had *Babylon*, *Chaldea*, and *Arabia*; and *Arbaces* had *Media*, *Perſia*, and the neighbouring Provinces. And theſe were the *Beginnings* of the *Babylonian* or *Chaldean* Empire, and that of the *Medes* and *Perſians*. This happen'd in the 7th Year of the Building of *Rome*, and in the 747th Year before CHRIST, and in the 12th Year of *Jotham* King of *Judah*.

From the Diſſolution of the Aſſyrian *Empire aroſe two others, viz. The* Babylonian *and* Perſian.

THE Empire of *Babylon* and *Chaldea* ſubſiſted from its firſt Founder *Beleſis*, to the Death of its laſt Monarch *Darius* the *Mede*, and Uncle of *Cyrus*, the Space of 210 Years. Alſo the Empire of the *Aſſyrians* and *Perſians* continued entire from *Arbaces* to *Sennacherib*; in the 5th Year of whoſe Reign (and the 37th of the Empire) the *Medes* revolted, and made *Deioces* King the next Year; and 30 Years after the Empire of *Aſſyria* was united with that of *Babylon* under *Eſarhaddon*, and in the 19th Year of *Manaſſeh* King of *Judah*; and thus continued till the predicted *Cyrus* General of the *Medes* and *Perſians* aroſe and ſubdued them both, then govern'd by *Belſhazzar* (or *Nabonadius*) and placed his Uncle *Darius* (or *Cyaxares*) on the Throne of *Babylon*, who after two Years died; when *Cyrus* himſelf aſſumed the *Imperial Power*, and eſtabliſh'd and founded the ſecond Univerſal Monarchy, call'd the *Perſian Empire* or *Monarchy*, which extended over all *Aſia*, and Part of *Africa* in time, from *India* to *Ethiopia* incluſively.

Their Continuance and Diſſolution.

From whence aroſe the ſecond Univerſal Perſian *Empire under* Cyrus.

IN the 141ſt Year of the *Babylonian Empire*, King *Nebuchadnezzar*, in the 20th Year of his Reign, took *Jeruſalem*, and carried the *Jews* away into Captivity, where they continued 70 Years, till *Cyrus* again reſtored them to their own Land, which was in the

The Kingdoms of Iſrael *and* Judah *aboliſhed.*

536th Year before Chriſt: And in the 26th Year of the *Aſſyrian Empire*, and the 721ſt before Chriſt, *Salmaneſer* took *Samaria*, led away the ten Tribes of *Iſrael* into Captivity in *Aſſyria*, and thereby extinguiſh'd the Kingdom of *Iſrael*; which was 115 Years before the Captivity of *Judah*.

Of various Nations contemporary with the Aſſyrian *Monarchy.*

DURING the Period from the firſt great *Monarchy* founded by *Nimrod*, to the ſecond or *Perſian Monarchy*, founded by *Cyrus*, ſeveral petty Kingdoms in other Parts of the World, eſpecially in *Africa*, had their *Riſe*, various *Viciſſitudes*, and *Declenſions* at different Times; ſome of the principal of which I ſhall name in the Order as follows, beginning with *Greece* and its ſeveral *Republics*.

GREECE contain'd, in its ancient Extent, *Hellas*, *Theſſaly*, *Epirus*, *Macedonia*, *Thracia* in Part, *Peloponneſus*, and many Provinces in *Aſia*.

Of the four-fold State of Athens.

IN *HELLAS* was founded the moſt ancient Kingdom of *Athens*, which Authors obſerve to have undergone four *different States* before the *Romans* ſubdued it, *viz.* (1.) *Monarchy*; in which it was govern'd by ſeventeen Kings, from the Year of the World, or *A. M.* 2448 to 2914, the Space of 466 Years; the firſt of whom was *Cecrops* an *Egyptian*, who founded it, and the laſt *Codrus*; after whom the *Athenians* aboliſh'd the *Kingly Power*, declar'd *Jupiter* their only *King*, and inſtituted the (2.) *Perpetual Archontes*; the firſt of whom was *Medon*, and the laſt *Alcmeon*. There were thirteen, and they govern'd about 316 Years: They inſtituted the *Olympiads*, and built the Temple of *Jupiter Olympius*, one of the Wonders of the World. (3.) The *Decennial Archontes*, who ruled only ten Years each. Of theſe there were ſeven; the firſt was *Creon* or *Charops*, and the laſt *Eryxias*: This Government continued ſeventy Years. (4.) *Annual Archontes*, who were choſen yearly; and this State laſted about 761 Years.

Monarchy.

Perpetual Archontes.

Decennial Archontes.

Annual Archontes.

The State of Sicyone; *Monarchical,*

Sacerdotal, or Hierarchical.

SICYONE underwent two States of Government. (1.) *Monarchical*, founded about *A. M.* 1900, by *Ægialeus* the firſt King; after him ſucceeded twenty-five others, the laſt of which was *Zeuzippe*. This State endured about 900 Years. (2.) *Sacerdotal*, or that by the *Prieſts of Apollo*; the firſt of whom was *Archelaus*, and the laſt *Charidemes*. This Govern-

ment

ment lasted about forty Years; afterwards it continued a Free State for thirty-three Years, when 'twas seized by the Kings of *Mycene*.

CORINTH underwent six States: (1.) That of the *Sisiphides*, seven Kings; the first of which was *Sisiphus*, about *A. M.* 2593, and the last *Hiantidas*: These ruled 269 Years. (2.) The *Heraclides*, four Kings; the first was *Aletes*, and the last *Primius*; they govern'd 134 Years. (3.) The *Bacchides*, eight Kings; the first of whom was *Bactris*, and the last *Automene*; this State continued 177 Years. (4.) The *Prytanes*; these were *annual Magistrates*, who ruled about 121 Years, when they fell under the Dominion of the Tyrants *Sipselus* and *Periander*. (5.) Their next State was that of a *Republic*; during which they were engaged in many Wars. (6.) Their sixth and last State was under the *Romans*, whose Consul *Lucius Mummius* defeated them in Battle, and burnt their Town.

The sixfold State of Corinth. *The* Sisiphides, *The* Heraclides. *The* Bacchides. *The* Prytanes. *Republic.* *Roman.*

ARGOS, which look'd upon itself to be the most magnificent City in the World, was governed by eighteen Kings; the first was the Founder thereof *Inachus*, and the last *Agamemnon*. These reign'd from *A. M.* 2148, about the Space of 670 Years; at the End of which happen'd the *Trojan* War.

The State of Argos *Monarchical.*

LACEDEMON underwent four States. (1.) A *Monarchy*, under eleven Kings; the first was *Lelex* the Founder about *A. M.* 2593, and the last *Tisamene*. (2.) The *Heraclides*, or Descendants of *Hercules*; these were divided into the two Branches of *Eurisienes* and *Procles*; they obtain'd the Kingdom by *Lot*, and 'tis said they began their Reign *A. M.* 2862. but 'tis uncertain how long it continued. (3.) Their third State was under four Kings, whose Power was moderated by twenty-eight *Gerontes* or *Senators* appointed by the famous Lawgiver *Lycurgus*; the first was named *Telecles*, who began his Reign *A. M.* 3130, and the last was *Theopompus*. (4.) Their fourth State was under *Kings*, whose *Power* was check'd by five *Ephori*, or *Inspectors*: the first of these Kings was *Polydorus*, who began his Reign *A. M.* 3260; and the twenty-first, or last of them, was *Cleomenes* III. He attempted to restore the Government founded by *Lycurgus*, kill'd the *Ephori*, took *Argos* and Part of *Peloponnesus*; but

The fourfold State of Lacedemon.

was at last defeated in Battle by *Antigonus*; after which he retir'd into *Egypt*, and all the Glory of *Sparta* fell with him.

Of Mycene. *MYCENE* was governed by three Kings, from *A. M.* 2693 to 2831; the first of which was *Perseus*, and the last *Oreſtes*, whose Sons were dethron'd by the *Heraclidæ*, Kings of *Lacedemon*, and subdued *Mycene*.

Thebes. *THEBES*, the principal City in *Bœotia*, was under the Government of many Kings, and great Men, whose Names are famous in fabulous History. The first is said to be *Colydnus*, and next to him reign'd *Ogyges*, in whose Time all *Greece* was reported to be deluged. Then *Cadmus* is said to have come into *Bœotia*, and to have brought the Use of Letters with him out of *Phœnicia*. After this we read of *Amphion*, *Oedipus*, &c. and last of all *Xanthus*; who being kill'd in Battle, the *Thebans* renounc'd *Monarchy*, and changed the State to an *Ariſtocracy* or *Democracy*, as it was when the *Perſian* Empire overwhelm'd it.

Troy. *TROY* was under the Government of seven Kings, from *Teucrus* the first, to *Priamus* the last, for the Space of 300 Years, when it was destroy'd by the *Grecians*.

The Roman *State various.* THE History of the *Roman* Affairs is involv'd in Obscurity and Uncertainty, till the Time when *Romulus* founded the City, from him call'd *Rome*, which is said to be about *A. M.* 3300. He form'd the State into a *Monarchy*, and was succeeded by six Kings, the last of which was *Tarquin*, whom *Brutus* drove into Exile, and thus put an end to the Kingly Government, after a Period of about 240 Years. Upon this the *Romans* establish'd the *Conſular* Government, which was a Mixture of *Ariſtocracy* and *Democracy*. This State continued till *Julius Cæſar* again reduced both it and all others to a *Monarchical* or *Deſpotic Empire*; which was in about 460 Years.

Egypt's *antient State.* *EGYPT* was famous for its early Government and great Succession of Kings, even from *Ham*, or at least from *Mizraim* his Son, who is reckon'd the first in the Chronology of the *Egyptian* Kings, and is said to have began his Reign there, *A. M.* 1900. From him to *Nectanebus* the Second (who was the last of the *Egyptian* Race) they enumerate thirty-seven Kings inclusively, and 1700 Years, or thereabouts. *Nectane-*

bus

bus was expell'd by *Ochus* the eighth *Perſian* Emperor, and his Kingdom ſubdued, and made a Part of the *Perſian* (which ſoon after became the *Grecian*) Empire. But we return to take a conciſe View of

Of the Perſian *Empire, or ſecond Monarchy.*

THE *PERSIAN EMPIRE*, which was the ſecond of the four great and univerſal Monarchies of the World. *Cyrus*, as has been obſerv'd, was the famous Founder thereof in the Year before Chriſt 536. He was ſirnam'd the *Great*, on account of his *heroic* Actions, and *great* Atchievements. He was the Son of *Cambyſes* King of *Perſia*, by his Queen *Mandana*, the Daughter of *Aſtyages* King of *Media*, who was Son to *Cyaxares*, Grandſon to *Phraortes*, and Great Grandſon to *Deioces*, the firſt abſolute King of *Media*. *Cyrus* reign'd ſeventy Years, and dying, was ſucceeded by his Son *Cambyſes*; who invaded *Egypt*, vanquiſh'd *Pſammiticus* the King, and added that Kingdom to his Empire. He demoliſh'd the *Egyptian* God *Apis*, murder'd his Brother *Smerdis*, and his Siſter; and died in the eighth Year, infamous for *Cruelty* and *Luſt*. On his Death (or indeed ſome time before) the *Magi*, or *Magians*, ſeized the Empire, and ſet up an *Impoſtor*, who they pretended was *Smerdis* the true Son of *Cambyſes*; but this falſe *Smerdis* having before loſt his *Ears*, the Cheat was ſoon diſcover'd by his Wife *Phedyma*; and both he and all his Sect of the *Magians* were ſlain. *Note*, the foregoing *Cambyſes* and *Smerdis* were the *Ahaſuerus* and *Artaxerxes* of the Scripture, *Ezr.* iv. 5, 6, 7. *Smerdis* being ſlain the firſt Year of his Uſurpation, they choſe *Darius Hyſtaſpes* King, under whom the *Babylonians* revolting, *Darius* beſieg'd them, and after twelve Months took their City, beat down the Walls, and gave the Inhabitants for a Spoil to the *Perſians*. He made War on the *Scythians*, with great Loſs to himſelf, ſubdued *Thrace*, and afterward *India*. He reduced the *Helleſpont* and *Thracian Cherſoneſus*. He fought a Battle with the *Greeks*, but was diſcomfited at *Marathon*. After thirty-ſix Years Reign, he declares *Xerxes* his Succeſſor, and dies. *Xerxes* thoroughly reduced *Egypt* after a Revolt; he marched with a prodigious Army againſt *Greece*, and loſt the Battle of *Salamis*. He deſtroy'd the Temple of *Bel* at *Babylon*. He was defeated in many Wars againſt the

Grecians, by Armies commanded by the Generals *Pauſanias*, *Ariſtides*, *Themiſtocles*, *Cimon*, &c. and at laſt was ſlain by the Treaſon of *Artabanus*, in the 21ſt Year of his Reign. He was ſucceeded by his Son *Artaxerxes Longimanus* (the *Ahaſuerus* of *Eſther.*) He ſlew *Artabanus*, and conquers his Brother *Hyſtaſpes*, and becomes thoroughly ſettled on the Throne. He divorced *Vaſhti* his Queen, and choſe the Virgin *Eſther* for his Concubine. He ſent *Ezra* to govern *Judæa*. *Egypt* revolts, but is reduced. *Haman* is put to Death. *Artaxerxes* is defeated by *Cimon* the *Athenian* General, and therefore makes a Peace with them. *Nehemiah* is ſent Governor to *Judæa*, who repeoples the City, and reforms the Church and State of the *Jews*. *Meto* begins his Cycle. About the 36th Year of this Reign the Prophet *Malachi* flouriſhed. In the 41ſt Year of his Reign *Artaxerxes* dying, was ſucceeded by his Son *Xerxes*, who was preſently ſlain by *Sogdianus*, and he by *Ochus*, who with the Crown aſſum'd the Name of *Darius*, and is commonly call'd *Darius Nothus*. The *Egyptians* revolt from him, and make *Amyrtæus* their King. He dies in the 19th Year of his Reign, and is ſucceeded by *Artaxerxes Mnemon* his eldeſt Son. He defends his Country againſt the *Lacedemonians* and *Athenians*, and makes a Peace with them. The *Perſians* conquer *Cyprus*. *Artaxerxes* dies in the 46th Year of his Reign, and is ſucceeded by *Ochus* his Son. Upon his Succeſſion great Revolts were made in the Empire. *Ochus* takes and deſtroys *Sidon*, he invades *Egypt*, expels King *Nectanebus*, and reduces all the Country. He is poiſon'd by *Bagoas* in the 21ſt Year of his Reign, and *Arogus* or *Arſes* made King in his ſtead. *Bagoas* alſo poiſon'd him in the ſecond Year of his Reign, and made his Friend *Codomannus* to ſucceed him, who then aſſum'd the Royal Name of *Darius*, and perceiving *Bagoas* had a Deſign of poiſoning him too, he put him to Death. *Alexander*, the Son of *Philip*, late King of *Macedon*, being made General of the *Grecians* againſt the *Perſians*, he defeated *Darius* in three Battles of *Granicus*, *Cilicia*, and *Arbela*, and conquer'd all *Aſia*, by which Means the Empire of the *Perſians* was transferr'd to the *Grecians*, after it had ſtood about 205 Years, and in the 4th Year of *Darius* the laſt King thereof.

ALEX-

ALEXANDER, ſirnamed the *Great*, was born at *Pella* in *Macedonia*, and gave many ſurprizing Proofs of his Courage and Dexterity during his Youth; eſpecially in mounting and taming his Father's *fierce Horſe*, which none of his *Equerries* could do; whereupon, when he diſmounted, King *Philip* his Father told him, with a Kiſs, he ſhould go and ſeek other Kingdoms, for *Macedonia* was too little for him. According as he grew in Years, he ſignalized his Valour in many wonderful Inſtances; and at laſt ſucceeding his Father as General of the *Grecian* Armies, he paſſed into *Aſia*, and wins the Battle of *Granicus*, where he defeated the *Perſian* King *Darius*; and the next Year reduced all *Leſſer Aſia*, and wins the Battle of *Iſſus*, where he again defeated *Darius*, and took his Mother, Wife and Daughters, but treated them according to their Quality. After this he march'd into *Syria*, and took *Tyre* and *Gaza*, and deſtroy'd them both. He went to beſiege *Jeruſalem*, but was prevented by *Jaddus* the High-Prieſt, who met him in his *Veſtments*, and read to him *Daniel's Prophecy*, which foretold he ſhould conquer the *Perſians*; this ſo pleas'd him, that he made Preſents to the Prieſt, and left the *Jews* in Freedom. Soon after, he conquers *Egypt*; and the next Year, which was 331 before Chriſt, he began to reign as Emperor of *Aſia*, and paſſing the *Euphrates* and *Tigris*, wins the Battle of *Arbela*, and takes *Babylon*, *Suſa*, *Perſepolis*, and the Provinces belonging to them. In his ſecond Year *Darius* was ſlain, and he ſubdues the *Medes*, *Parthians*, *Hyrcanians*, *Arians*, &c. and the next Year the *Bactrians* and *Sogdians*; and put *Beſſus* to Death as a Traitor to *Darius*, and an Uſurper of his Kingdom. In his fourth Year, he married *Roxana* the Daughter of *Oxyathres* a noble *Perſian*, and paſſing to *India*, conquers all to the River *Indus*; and the next Year, he conquers all beyond the *Indus*, to the River *Hyphaſis*, and returning home by the *Indus*, conquered ſeveral Nations in his Way. Two Years after, he conquer'd the *Coſſæans*, to divert his Grief for the Loſs of his boon Companion and Favourite *Hepheſtion*, who kill'd himſelf by Drinking the Year before. After this he paſs'd to *Babylon*; during his ſtay here, he laid aſide his former Modeſty, and gave himſelf up to all

Of the Grecian *Monarchy begun in* Alexander *the Great.*

The Death of Alexander.

all manner of Debauchery and Luxuries, eſpecially Drinking, by the Exceſs of which he contracted a Fever, whereof he died, in the ninth Year of his Reign, and the 33d Year of his Age. And here endeth all the Deſigns of this great and vain-glorious Prince. Never had any Man a greater Run of Succeſs than he, who in the Space of twelve Years ſubdued all the Nations and Countries from the *Adriatic* Sea to the *Ganges*, the greater Part of the then known habitable World.

The great Confuſions enſuing ther eon

ON the Death of *Alexander* there aroſe great Confuſions among his Followers about the Succeſſion; at length they agreed that *Aridæus*, a baſtard Brother of *Alexander*'s ſhould ſucceed on the Throne; but being an *Ideot*, the Government of the Empire was divided among the chief Commanders of the Army, who were ſometimes content with the Name of Governors, but at length took that of Kings, as having the Authority from the firſt. As ſoon as they were ſettled in their Provinces, they all fell to leaguing and warring againſt each other, till they were, after ſome Years, all deſtroy'd to four. Theſe were *Caſſander*, *Lyſimachus*, *Ptolomy*, and *Seleucus*.

The Diviſion of the Empire.

THESE four divided the whole Empire thus; *Caſſander* had *Macedon* and *Greece*; *Lyſimachus* had *Thrace*, and thoſe Parts of *Aſia* which lay upon the *Helleſpont* and *Boſphorus*: To *Ptolemy* fell *Egypt*, *Lybia*, *Arabia*, *Paleſtine*, and *Cœlo-Syria*; and *Seleucus* the *Upper Syria*, and all the reſt.

The Extinction of Alexander's Family and Empire.

ARIDÆUS being made *nominal* King of *Perſia*, had his Name changed for that of *Philip*, and thus reigned ſeven Years, when *Olympias* the Mother of *Alexander*, cauſed him to be put to Death with *Eurydice* his Wife, and ſeveral others. After which *Alexander Ægus*, the Son of *Alexander* and *Roxana*, bore the Title of King, till *Caſſander*, about ſeven Years after, put both him and his Mother to Death, that he might, without Interruption, ſeize on the Kingdom of *Macedon* himſelf, as he accordingly did. And thus the Family and Empire of *Alexander the Great* became entirely extinct.

Caſſander *governs* Macedon.

CASSANDER having govern'd *Macedon* from the Death of his Father *Antipater* 19 Years, died of a Dropſy; and *Philip*, his eldeſt Son, ſucceeded, who

dying ſoon after, left the Crown to be contended for by his Brothers *Antipater* and *Alexander*; of which the *firſt* was driven to Baniſhment for the impious Murder of his Mother *Theſſalonice*, and the *latter* ſlain by *Demetrius* Son of *Antigonus*, who thereupon obtain'd the Kingdom of *Macedon* for ſeven Years. Thus the Royal Family of *Philip* King of *Macedon* became utterly extinct. After this the Kingdom of *Macedon* continued till *Perſeus*, the laſt King thereof, was vanquiſh'd by *Paulus Æmilius*, the *Roman* Conſul; and then it was made a *Province* of the *Roman* Empire, after having been a Kingdom under thirty Kings for 933 Years. This happen'd 168 Years before Chriſt.

Of the Ptolemean *Kingdom in* Egypt.

PTOLEMY being ſettled on the Throne of *Egypt*, began his Reign in the 304th Year before Chriſt. He was ſirnamed by ſome *Soter*, by others from his Father *Lagus*. After twenty Years Reign he reſigned his Kingdom to his youngeſt Son *Ptolemy Philadelphus*. This Kingdom ſubſiſted under thirteen Princes, the laſt of which was *Cleopatra*, the moſt beautiful and accompliſh'd Woman in the World, but exceſſively given to Pride and Voluptuouſneſs. Her Husband was the famous *Mark Anthony*, whom *Octavius*, *Julius Cæſar*'s Nephew, conquered at the Battle of *Actium*, and thereby reduced *Egypt* to a *Roman* Province, after it had ſtood a Kingdom in the *Ptolemean* Race 273 Years, that is, in the 31ſt Year before Chriſt.

Of the Seleucian *Race in* Syria, &c.

SELEUCUS growing very great in the *Eaſt*, at length got the Dominion of *Media*, *Aſſyria*, and *Babylon*; and afterwards that of *Perſia*, *Bactria*, *Hyrcania*, and all the other Provinces on this ſide the *Indus*, which *Alexander* before had made himſelf Maſter of. And thus he re-eſtabliſh'd a Kingdom over *Aſia Minor* and *Syria*, which became a *Theatre* of many terrible and horrid Tragedies under the *Antiochus's*, &c. who ſucceeded. This *Aſiatic Monarchy* laſted till *Gabinius* the *Roman* Conſul vanquiſhed *Seleucus Cybioſactes*, the laſt of the *Seleucian Race*, and ſet up a new Form of Government in the Land, about 57 Years before Chriſt. So this Kingdom ſtood about 260 Years. Though others more properly terminate this Monarchy about nine Years before, when

Pompey

Pompey the Great vanquish'd *Tygranes*, King of *Syria*, and reduced the Country to the Form of a *Roman Province*.

Lysimachus *not successful.*

LYSIMACHUS, the last of the four Captains of *Alexander*, who divided his Empire, had not the Fortune of the other three in laying the Foundation, and being first in a *Monarchy*; for he was defeated and slain in Battle by *Seleucus*, who thereby became Master of all his Dominions.

As to the State of the *Jews* during the Periods of the *Grecian* and *Roman Empires*, I have already briefly related it in the fourth Chapter hereof, and therefore need not here repeat it. The next great Revolution in the Fortune of the World let us view in the fourth and last great and universal *Monarchy*, viz. that of the *Roman Empire*.

The Consular State of Rome.

AFTER the Abolition of the *Regal Power*, the first State of *Rome*, the *Consulate* was instituted; which was a Power, or Sovereignty with which two Magistrates, annually elected, were invested; the *Senate* was their Council, and they decided all Affairs, but there lay an Appeal to the People; which made this no other than a *Republic* or *Democracy*. The first who enjoy'd this *Consular Dignity* were *L. Junius Brutus*, and *L. Tarquinius Collatinus*, who began their Government *A. M.* 3545, and of *Rome* 244.

The Triumvirate.

THE *Roman* Affairs were administred by the *Consuls* for the Space of about 470 Years; when *Julius Cæsar* form'd the famous *Triumvirate* between himself and *Pompey* and *Crassus*; by which means the whole Power of the *Roman State* became in a manner ingross'd by these three *Potentates*, who divided it among themselves. This laid the first Foundation of the Civil Wars which afterwards broke out between *Pompey* and *Cæsar*, and at length ended in the Destruction of the old *Roman* Government, by changing it from a *Republic* to a *Monarchy*.

The Beginning of the Roman *Monarchy under* Julius Cæsar.

UNDER this *Republican State*, *Rome*, by Degrees, made herself Mistress of most of the principal Kingdoms and States of the known World, by the *Courage* and successful Enterprizes of her *Consuls* from time to time, but most particularly of *Julius Cæsar*; whose Ambition reach'd to universal *Dominion* and *Sovereignty*; which at length he *atchiev'd*, going on conquering and

and to conquer, in all the habitable Parts of *Asia*, *Africa*, and *Europe*, which he effectually reduced to the Obedience of *Rome*; and on his return made a *triumphal Entrance* into the City: The *Senate* and People submitted to him, and made him *Perpetual Dictator*.

The Roman *Monarchy under the twelve* Cæsars.

The *Roman State* being thus chang'd to a *Monarchy* in *Julius Cæsar*, he became the first sole Emperor of the World among the *Romans*, and laid the Foundation of the fourth *Monarchy*. He was at last slain in the *Senate House*, in the 56th Year of his Age, and the 44th before Christ. *Octavius*, the Nephew of *Cæsar*, having conquer'd *Brutus* and *Cassius*, was declared *Augustus*, and Master of the *Empire*. His Reign was honour'd with the Birth of our Saviour; he died in the 44th Year thereof, and was succeeded by *Tiberius Cæsar*; and after him succeeded *Caligula*, *Claudius*, *Nero*, *Galba*, *Otho*, *Vitellius*, *Vespasian*, *Titus* and *Domitian*, who was the last of the twelve *Cæsars*. The two greatest Events during this Period were the Crucifixion of our Saviour in the Reign of *Tiberius*, and the Destruction of the *Temple* and *City* of *Jerusalem*, and the total *Extirpation* of the *Jewish* State and Nation under *Vespasian* and *Titus* his Son.

The Empire divided by Constantine the Great *among his Sons.*

After the *Julian Family*, there was a Succession of 31 Emperors from *Nerva*, who succeeded *Domitian* in *A. D.* 96, to *Constantine the Great*, who began to reign *A. D.* 306. He removed the Seat of the Empire from *Rome* to *Byzantium*, which City he built, and call'd it at first *New Rome*, but afterwards *Constantinople*. He divided the Empire among his three Sons, *Constantine*, *Constantius* and *Constans*, and died *May* 22. 337, in the 66th Year of his Age.

The same again divided by Theodosius *in the* Eastern *and* Western *Empire.*

Of these three Sons, *Constans* had the *East*, *Asia*, and *Egypt* for his Share; *Constantine* had *Gaul*, *Spain*, and *Great Britain*; and *Constantius* had *Italy*, *Africa*, and *Illyrium*; but *Constans* surviv'd the other two, and became sole Master of the Empire; who dying in the 45th Year of his Age, was succeeded by *Julian* the *Apostate* in *A. D.* 361, *Jovian* 363, *Valentinian* 364; *Valens* and *Gratian* 375; and at last *Theodosius the Great*, who had defeated the *Goths*, *Alans*, and *Huns*; and was baptiz'd at 44 Years of

Age, and died at the 60th, and *A. D.* 395. having left the Empire of the *East* to his Son *Arcadius*, and that of the *West* to his Son *Honorius*.

The Western *Empire under* 10 *Emperors.*

FROM *Honorius* there are reckon'd about 10 Emperors of the *Western* Empire to *Augustulus* inclusively; who came to the Throne *A. D.* 475. During this Period the Empire was in a declining State, and became a Prey to several *Barbarous Nations*, who continued their Invasions upon it from the Year 400 to 600. The Chief of which were the *Goths*, *Ostrogoths*, *Vandals* and *Lombards*; the *Daci*, *Sarmatæ*, *Heruli*, *Suevi*; the *Picts*, the *Huns*, *Alans*, and *Scythians*: All which were antient People and Nations of *Europe* and *Asia*. Among these

Of the Goths, *and* Ostrogoths *in* Italy.

ODOACER King of the *Heruli* subdued *Augustulus* in the first or second Year of his Reign, and was himself defeated in the 17th Year of his Reign by *Theodoric* II. King of the *Goths*; who succeeded in *A. D.* 493; and began the Reign of the *Ostrogoths*. From him succeeded eight Kings, of whom *Tejas* was the last, who was defeated by *Narses*, *Justinian*'s General, in 553; and thus the Kingdom of the *Ostrogoths* in *Italy* ceased after a Continuance of 92 Years.

The Kingdom of the Lombards *in* Italy.

THIS *Narses*, being disgusted by the *Empress*, &c. call'd the *Lombards* from *Germany* into *Italy*, where they settled and form'd a new *Monarchy*; the first King of which was *Alboin*, who came to the Crown in 568, and the last was *Didier* or *Desiderius* in 774, in all twenty-two Kings. This *Didier* having seiz'd on the Patrimony of the Church, *Charlemagne* came against him, and took him; which put an End to the Kingdom of the *Lombards*, that had lasted 206 Years.

The Eastern *Empire.*

ARCADIUS, Son to *Theodosius the Great*, succeeded his Father as *Emperor* of the *East*, A. D. 395. From him there follow'd a Succession of sixty-four Emperors; of whom *Alexis* V. was the last. Prince *Henry*, Brother to *Baldwin*, Count of *Flanders*, made War upon him, defeated him, and put him to flight; and took the City of *Constantinople*, in *A. D.* 1204. So the *Eastern Branch* of the Empire continued entire 809 Years.

AFTER

AFTER this the *Greeks* falling out with the *French* and other *Weſtern Chriſtians*, they divided their Empire into two, under *Alexis Comnenus* and *Laſcaris*; while *Baldwin* remain'd poſſeſs'd of the *Royal City*, and good part of the Empire, which the *Latins* had ſeiz'd on becauſe the *Greeks* did not reimburſe their Charge for reſtoring young *Alexis* and *Iſaac*. By this Means the Empire was divided into three Parts, which after ſome time were all ſwallow'd up by the *Turks*.

Diviſions thereof, between Alexis Comnenus, Laſcaris *and* Baldwin.

BALDWIN, Count of *Flanders*, was elected Emperor at *Conſtantinople* by the *Latins*, A. D. 1204. After him ſucceeded 13 Emperors; the laſt of which, *Conſtantine* XIII. or XV. was ſlain in Battle by the *Turks* under Sultan *Mahomet* II; who ravaged *Greece*, took *Conſtantinople*, and put an End to the *Chriſtian* Empire there, about *A. D.* 1455.

ALEXIS COMNENUS, under the aforeſaid Diviſion of the Empire, made *Trebiſond*, a Town in *Natolia*, on the *Euxine Sea*, his Capital, *A. D.* 1204; and govern'd over *Cappadocia*, *Paphlagonia*, *Pontus*, and ſome other Provinces in *Aſia Minor*. To him ſucceeded eight Emperors, of whom the laſt was *David*. Mean while *Theodorus Laſcaris* reign'd at *Adrianople*, and after him four others, of which *Theodorus* III. was the laſt; in whoſe time *Mahomet* II. ſeized both the Empires of *Trebiſond* and *Adrianople*.

THE *Greek Empire* being thus totally extinct in that of the *Turks*, let us return to that of the *Latins*; where we find *Charlemagne*, or *Charles* the *Great*, Son to *Pepin* King of *France*, reſtor'd the Empire of the *Weſt*, and remov'd the *Royal Seat* from *Rome* into *Germany*; where he was anointed and crown'd Emperor by Pope *Leo* III. on *Chriſtmas-Day*, A. D. 800. He before had reſcued *Italy* from the *Tyranny* of the *Lombards*, and annex'd their Dominions to the Kingdom of the *Franks*. He was at the ſame time Maſter of *Germany*, *France*, *Italy*, and Part of *Spain*. He died *A. D.* 814, in the 72d Year of his Age. Before his Time *Germany* (like moſt other Countries of *Europe*) was a Compoſition of ſeveral independent *Democracies*. But he reduced the whole under his *Juriſdiction*.

Of Charlemagne, *who began the* German *Empire.*

The Imperial Families of Germany.

THE *Carolinian Family* continued till the Death of *Conrad* Duke of *Franconia* in *A. D.* 919, when the Crown devolv'd to the *Saxons* in *Henry* Duke of *Saxony*, where the *Imperial Dignity* continued till the Death of *Henry* II. *A. D.* 1024. Then it again return'd to the *Carolinian Family* in *Conrad* II. where it remain'd till *A. D.* 1125. when it again reverted to the *Saxons* in *Lotharius* Duke of *Saxony*; on whose Death the Crown was ſettled in the *Swabian* Family, when *Conrad* III. Duke of *Swabia* was elected Emperor, *A. D.* 1138. where it continued (though not without Interruption) till the *Execution* of *Conradin*, the laſt of that Family. Whereupon *Germany* was reduced to *Anarchy* and *Confuſion*, till *A. D.* 1273, when *Rudolph*, Earl of *Hadſburg*, and *Landgrave* of *Alſace*, was unanimouſly choſen Emperor; from whom deſcended *Frederick* III. Duke of *Auſtria*, who was crown'd *A. D.* 1490, and in whoſe Houſe the *Imperial Dignity* has continued to this Day.

Short Hiſtory of Spain.

SPAIN was antiently inhabited by the *Gallic Celts*, *Rhodians*, *Phœnicians*, *Cantabrians*, and *Carthaginians*; the latter of which being diſpoſſeſſed by the *Romans*, *Spain* became a *Roman* Province, and ſo continued till the Declenſion of the *Weſtern Empire*, upon which it was over-run firſt by the *Vandals*, then by the *Suevians*, and at laſt the *Goths* obtain'd the Government of the Emperor *Honorius*, where they reign'd from *Adolph* the firſt King, who enter'd *Spain* *A. D.* 411, till *A. D.* 713, *Roderick* the 34th and laſt King was defeated by the *African Saracens*, or *Moors*, or *Arabians*, who were all the ſame People. The *Moors* divided *Spain* into ſeveral petty Kingdoms, which continued between 7 and 800 Years, *viz.* to the Year 1492; in which they were totally extirpated by *Ferdinand* V. King of *Caſtile*. The *Suevian* Kings were 10; they reign'd in *Gallicia* from *A. D.* 408 to 585. The Kings of *Leon* were 24; who reign'd from *A. D.* 717 to 1028. The Kings of *Granada* were 22; who reign'd from *A. D.* 1238 to 1492. The Kings of *Arragon* 20; they reign'd from *A. D.* 1037 to 1516. The Kings of *Navarre* 38; they reign'd from *A. D.* 722. to *Henry* IV. of *France*,

France, 1589. The Kings of *Caſtile* reign'd from *A. D.* 1038 to this Time.

PORTUGAL having been a *Roman* Province till the Declenſion of the *Weſtern* Empire, and being thereupon poſſeſſed by the *Goths*, fell with the reſt of *Spain* into the Hands of the *Moors*, *A. D.* 713; under whom it continued till 1100, when it was recover'd by *Henry* of *Burgundy*; whoſe Son *Alphonſus* ſhook off the *Spaniſh* Yoke, and was proclaim'd King of *Portugal*, A. D. 1139. It continued a ſeparate Kingdom till 1580, when *Philip* II. King of *Spain* united it to *Spain*. But in 1640 the *Portugueſe* again ſhook off the *Spaniſh* Yoke, and choſe for their King the Duke of *Braganza*, under the Name of *John* IV. whoſe Poſterity enjoys the Crown to this Day. *Of* Portugal.

FRANCE was antiently inhabited by the *Gauls*, who in a Plurality of independent States were conquer'd by the *Romans* in the Time of *Julius Cæſar*, and *France* became a *Roman* Province; which it continued to be till about 500 Years afterwards, when it was over-run by the *Goths* and *Burgundians*, and at laſt by the *Franks*, a People of *Germany*, who choſe *Pharamund* for their firſt King *A. D.* 424: From whoſe Kinſman and Succeſſor *Meroveus*, came the *Merovingian* Race; which endured till *Charles the Great*, the Son of *Pepin*, founded the *Carlovingian* Family *A. D.* 770, who enjoy'd the Crown till *A. D.* 987. *Hugh Capet* was made King, the firſt of the preſent (from him call'd the) *Capetian* Race of 30 Kings, the laſt of whom is the preſent *French* King *Lewis* XV. *Of* France.

ITALY, on the Diſſolution of the *Civil Monarchy*, by degrees acquir'd a *Spiritual one* or *Hierarchy*, or Government by Popes. For tho' the *Popes* had not the Adminiſtration of the *Civil Power* from the Beginning, yet they have had it for a long time paſt; and are ſaid not only to *over-ſee* as *Biſhops*, but to *reign* as *ſecular Princes*. And the *Eccleſiaſtical State* is abſolutely the Pope's *Kingdom*, which he governs by himſelf and *Legates*, as a *temporal Lord*, ſince the eighth Century, that *Pepin* King of *France* and his Son *Charles* gave it to the *Church*. As to the other Parts of *Italy*, they are divided into ſeveral *Dutchies*, as *Savoy*, *Tuſcany*, *Milan*, &c. *Republics*, as *Venice*, *Genoa*, *Of* Italy.

Genoa, &c. *Kingdoms*, as *Naples*, *Sicily*, and *Sardinia*.

Of Hungary. *HUNGARY* was in old times ſubject to the *Huns*, till about the eighth Century a *Scythian* Nation call'd *Hungari* diſlodged them, poſſeſs'd and gave Name to the Country. They were governed by *Chiefs* or *Dukes*, till the Time of St. *Stephen*, who was crown'd King of *Hungary A. D.* 1000, after whom ſucceeded a Regency of 45 or 46 Kings, to the preſent Time; *Joſeph* the late Emperor of *Germany* being crown'd King of *Hungary*, *A. D.* 1687.

Of Swiſſerland. *SWISSERLAND*, upon the Decay of the *Roman* Empire, maintain'd its Liberty under the Kings of *Burgundy*, *Auſtria*, and *France*, &c. who have interchangeably poſſeſſed and contended for it for 500 Years paſt. Its preſent State is a *Republic* of 13 *Cantons* or *Diſtricts*, ſeven of which are govern'd by an *Ariſtocracy*, none but the *Burghers* having any Share in the Government. The other ſix are *Democratical*, all the Inhabitants being admitted to the Government.

Of Belgium, *or the* Netherlands. *BELGIUM*, which contains the *Netherlands*, or Countries of *Holland* and *Flanders*, was antiently a Part of the *Roman Empire*, being ſubdued by *Julius Cæſar* and *Auguſtus*; under which it continued till the Time of *Theodoſius*, when the Empire being overrun, ſeveral People of *Germany* made Deſcents upon it one after another. But in proceſs of Time they recover'd their Liberty, and all this Country was divided into 17 Provinces; ſome govern'd by *Dukes*, others by *Counts*, one by a *Marquis*, and five by *Lords*, of which *Frieſland* was one; which, having ſhook off the Yoke, was govern'd by Kings for near 400 Years. *Holland* and *Zealand* were govern'd by *Counts* from *A. D.* 863 to 1558, when *Phillip* II. of *Spain* was their laſt Count; from whom they revolted, and form'd themſelves into their preſent Commonwealth in the Union of *Utrecht*, A. D. 1579. *Flanders* was under *Earls* from *A. D.* 621 to 860, when *Baldwin* was made their firſt Count; by which *Sovereigns* they were after govern'd till they fell to the Houſe of *Auſtria* under the Emperor *Charles* V. and then to the Crown of *Spain* under his Son *Philip* II. to which they continue ſtill to pay Obedience.

MUSCOVY

MUSCOVY is, as to its Hiſtory, involv'd in *Ignorance* and *Obſcurity*. Prince *Woldomir* introduced Chriſtianity here *A. D.* 988. After this we know little till they became a Prey to the *Tartars*, when their Prince *George* was defeated by the *Tartarian* King *Batto*, A. D. 1273; who ruled them under hard Terms, till *A. D.* 1450 Prince *John* deliver'd them, and erected the numerous petty Principalities into one Body. Thus they continued under various Fortunes, till the Nobility choſe *Michael Feodorowitz*, who, by his Acceſſion to the Throne 1613, began the Race of *Alexiewitz*, the preſent Royal Family. *Of* Muſcovy.

POLAND being abdicated by its antient Inhabitants, fell in *A. D.* 550 into the Hands of a vagrant People, under the Conduct of one *Lechus*, who founded the Government of the *Lechidæ*, which continued till the *Woiewods* or 12 Governors, who poliſh'd this rude and barbarous People; but at laſt falling into Parties, the People were obliged to chuſe a King, who was *Cracus*, who reſtored the *Republic* to its Tranquility *A. D.* 700. In *A. D.* 820 the *Poles* exalted to the Throne one *Piaſtum* a *Wheelwright*: His Poſterity, call'd the *Piaſti*, long enjoy'd it; till at laſt, *A. D.* 1382, the Crown devolv'd to *Jagello* Duke of *Lithuania*, who founded the *Jagellonian* Family, which became extinct *A. D.* 1548, when their Kings became *Elective*; of which *Heny de Valois*, Duke of *Anjou*, was the firſt. *Of* Poland.

SWEDEN is ſaid to have been in the State of a Kingdom ſoon after the Deluge, which is ſaid to have continued till the 100th Year of *Rome*, when it became a *Republic*, which laſted 250 Years. Monarchy was re-eſtabliſh'd by *Eric* II. whoſe Poſterity continued till *A. D.* 455, through 21 Succeſſors. In *A. D.* 829, the *Swedes* embraced *Chriſtianity*. In *A. D.* 1396, *Sweden*, *Norway*, and *Denmark* were united in the Union of *Calmar*, which laſted not long: For in *A. D.* 1449 *Norway* and *Denmark* choſe a King, whoſe Poſterity had ſeveral various Adventures with the *Swedes*, who were miſerably harraſs'd by them, till *A. D.* 1528, when *Guſtavus Ericſon* ſhook off the *Daniſh* Yoke, and was proclaim'd King; and in 1544 the Crown was made hereditary to his Family, wherein it continues to this Day. *Of* Sweden.

Of Denmark. *DENMARK* is one of the moſt ancient Kingdoms of *Europe*. One *Danus* or *Dan* is reported to be the firſt of their Kings, who headed the *Cimbri* and *Goths* when they invaded and ravaged *Germany*. About our Saviour's Birth *Frotho* III. govern'd them. *A. D.* 846 *Eric* I. began to reign, and introduced *Chriſtianity*. In 1012 *Canute* II. came to the Crown, who afterwards was alſo King of *England*, *Sweden*, *Norway*, &c. He was buried at *Wincheſter* in 1036. In 1396 was the Union of *Norway*, *Denmark*, and *Sweden* under *Margaret* Queen of *Norway*: And in *A. D.* 1449 *Chriſtian* Earl of *Oldenburg* was declared King of the *Danes* and *Norwegians*, in whoſe Family thoſe two Crowns have remained ever ſince.

Of Norway. *NORWAY* in its original State is very obſcure. In *A. M.* 3960 *Frotho* was King, who was ſucceeded by 16 Kings, the laſt of which, *Lodbrog*, was contemporary with *Charlemagne*. *Sigifordus* reign'd *A. D.* 798; and in 868 *Harold Harfoger* was their ſole King, who died 931, and his Race were Kings of *Norway* 500 Years. In *A. D.* 1396 was the *Union* of the *three Kingdoms*, as before mention'd, and which remains to this Day between *Norway* and *Denmark*.

Of the Riſe of the Mahometan *Empire*. If now we return and review the Modern Hiſtory of *Aſia*, we ſhall there meet with one of the greateſt Revolutions that ever happen'd in the World; I mean that occaſioned by the Impoſtor *Mahomet*, which gave Birth to an Empire which, in 80 Years, extended itſelf over more Kingdoms and Countries than did the *Roman* in 800. And though it continued not above 300 Years, yet out of its Aſhes have ſprung many others, of which there are three ſtill remaining, the largeſt and moſt potent Empires in the World, *viz.* the *Turkiſh*, *Perſian*, and that of the *Mogul*.

The Caliphs. After the *Impoſtor*'s Death, *Ebubezer* his Father-in-law, and one of his chief Captains, took upon him the Imperial Power, *A. D.* 622, who was ſucceeded by 24 others, by the Name of *Caliphs*, the laſt of which was *Mahomet* IV. who ended his Reign about *A. D.* 872. Theſe *Caliphs*, or *Saracen* Emperors, by Degrees extended their Conqueſts over *Perſia*, *Egypt*, *Paleſtine*, *Syria*, all *Barbary*, *Rhodes*, *Cyprus*,

Cyprus, *Aſia Minor*, *Armenia*, *Greece*, *Conſtantinople*, all *Italy*, &c. But about 325 Years after the Impoſtor's Death, the Governors of the Provinces took the Regal Power on themſelves, and left the *Caliphs* nothing but the Shadow of their *Authority*. At laſt they divided into *Caliphs* and *Anti-Caliphs*, till the *Tartars* put an end to the Pretenſions of both, under the famous Emperor *Tamerlane the Great*.

THE *TURKS* were a People firſt known by the Name *Turcæ*, about the Lake of *Mæotis*, and not much heard of till *A. D.* 577. In 619 they are mentioned at the Siege of *Conſtantinople*, under the Command of the *Perſians*. After which they ſet up for themſelves, and in *A. D.* 736 invaded *Albania* and other Countries on the *Caſpian* and *Euxine* Sea. In 844 they poſſeſs'd themſelves of *Armenia Major*, and call'd it *Turcomania*. Here they lived in no great Figure, till *Mahomet* the Sultan of *Perſia*, rebelling againſt the *Caliph* of *Babylon*, call'd them to his Aſſiſtance; who came under *Taugrolipix* their Leader, and procured the Sultan a ſignal Victory. *The Original of the* Turks.

THE ſaid Sultan *Mahomet* not giving them the promiſed Rewards, nor yet leave to return home, they, being juſtly enraged, began to mutiny, and plunder'd the Country, at laſt fought with, and defeated the Sultan and kill'd him. His Army, diſſatisfied with his Conduct, join'd with the *Turks*, and made *Tangrolipix* Sultan of *Perſia*, *A. D.* 1030. His Race continued till *A. D.* 1198, when *Caſſanes*, the laſt of the *Turkiſh* Line, came to the Crown. He was vanquiſh'd by the *Cham* of *Tartary* in 1202, when the *Tartarian* Race began in *Cingis Chan*. *Tamerlane the Great* conquer'd the whole Empire, whoſe Son ſucceeded in *A. D.* 1405, and his Line became extinct in *Joancha*, who was defeated in *A. D.* 1472, by *Uſſan Caſſan* an *Armenian* Prince, whoſe Poſterity continued till *Alamat* or *Hagarat*; the laſt whereof was defeated, *A. D.* 1505, by *Iſmael Sophi*, who then founded the *Sophian* Family, who continue Monarchs of *Perſia* to the preſent Time. *The Riſe of the* Perſian *Empire from the* Turks.

OTTOMAN, the Son of *Ethrogul*, the Son of *Solyman* (who was drove out of *Perſia* by the *Tartars*) was about *A. D.* 1290 ſaluted with the Title of *Governor* *Of the Origin of the* Ottoman *Empire.*

Governor of the *Oguzian Turks* in *Asia*, and soon after with that of the Lord *Ottoman* or *Osman*. This great Prince afterwards took and spoil'd the rich City *Nice*; and the chief Sultan dying *A. D.* 1300, *Ottoman* was advanced in his stead, and then founded the great *Turkish* Empire in the *East* under the *Ottoman* Race, who have continued to this Day in a Succession of 24 or 25 Sultans from him: But the famous *Persian* General *Thamas Kouli Can* has given them many shocking Strokes of late, and his Armies are at this Time very victorious against them; on which Account the *Persians* have deposed their late Sophi, and elected him their Emperor or Sophi.

Of the Turkish *Kingdom in* Asia.

THE *Turkish* Kingdom of *Iconium* began *A. D.* 1072 in *Cutlumeses*, a Relation to *Taugrolipix*, who possess'd himself of that Country, and afterwards with several others in *Asia Minor*. He had 15 *Successors*, of whom *Melee* was the last in 1261, who was driven into Exile, and thereby a way was made for the *Ottoman* Line. We read of the Races of other *Turkish* Kings in *Asia Minor* at the Beginning of their Empire, but they all gave way at last to the *Ottoman* Line. The chief of these was the Race of *Turkish* Kings at *Damascus*, which *Taugrolipix* founded in the Persons of his Kinsmen *Melech* and *Ducat*, who began to reign over *Syria*, &c. *A. D.* 1075. After them succeeded 9 others, till the last, *viz. Saphradine*, was taken by the *Tartars*, A. D. 1262; who, on the Death of *Tamerlane*, were obliged to quit it to the *Mamalucks*, a military Order of People in *Egypt* under the *Saracens*, which subdued *Syria* and *Egypt*, and kept *Damascus* till *A. D.* 1516, when it was again recovered by the *Turks*. The Seat of the *Turkish* Empire hath been at *Constantinople* since *Mahomet* II. and eighth of the *Ottoman* Family took it *A. D.* 1455, or then abouts.

The Mamalucks, *who.*

Of Great Tartary, *and its History.*

GREAT TARTARY (or more rightly *TATARY*) is said to have for its first Emperor *Cingis Chan*; and tho' the Government was *absolute* and *tyrannical*, yet 'twas *elective*; for the *Grandees* of the Country chose his Son *Octady* to succeed him about *A. D.* 1168. In his Time the Name of the *Tartars* was first known and became formidable in *Europe*.

To

To him ſucceeded *Zain-Chan* or *Bar-Cham*, then *Gino-Cham*; and by his Daughter the Empire was convey'd to her Huſband *TAMERLANE the Great*, who made indeed ſo great a Figure in the World, that he is reckon'd equal to *Cyrus* or *Alexander*. He was born *A. D.* 1335. He was Maſter of all the Learning of thoſe Days, and was of a moſt gentle, mild, and affable Temple, attended with a *natural Greatneſs* and *Heroic Spirit* and *Valour*. He was an Enemy to *Idolatry*, and gave Liberty of Conſcience to all who worſhipped GOD, the Creator of all Things; wherefore GOD bleſſed him with wonderful Succeſs in his *Enterprizes*: For, under his Chriſtian General *Axalla*, he ſubdued the *Muſcovites*; after that *China*, and made the Kings thereof tributary to him, and deſtroyed Idolatry there. After this he defeated the *Turks*, and took their Sultan *Bajazet* Priſoner, and reproached him for fighting againſt the *Chriſtian Intereſt*. Hereupon moſt of the Provinces of *Aſia* ſubmitted to this new *Conqueror*: Then he made War upon the Sultan of *Egypt*, and conquer'd the Country, with the greateſt Part of *Africa*, *Syria*, *Judæa*, &c. and paid the higheſt Reverence and Devotion to *Chriſt* at his *Sepulchre* in *Jeruſalem*. He extended his Conqueſt to the *Indies*, and founded there the Empire of the *Moguls*. He died in the 66th Year of his Age, *A. D.* 1425. The great *Maurice* of *Naſſau*, Prince of *Orange*, always carried the Hiſtory of him in his Pocket, and preferr'd it to *Cæſar*'s *Commentaries*, or *Xenophon*'s *Cyropædia*. 'Tis ſaid he ſubdued more Countries in 8 Years, than the *Romans* did in 800. After him there were about ſix Succeſſors, the laſt of whom was *Demir-Cham* 1540, or thereabouts. In Eaſtern *Tartary Bohun* names a Catalogue of ſix Kings, who reign'd from *A. D.* 1550 to *Cham-Hi*, the laſt, who began to reign over *Tartary* and *China* in 1661, and in 1680 he perfected the Conqueſt of *China*, and was reckon'd to be the greateſt Prince in the World.

Short Hiſtory of Tamerlane the Great.

THE Empire of the *MOGULS* in *India* was founded, as I ſaid, by *Tamerlane*, who was the firſt Emperor thereof. His Son *Miracha* ſucceeded in *A. D.*

Of the Empire of the Mogul.

A. D. 1405. After him nine others ſucceeded to the Crown; of which the laſt *Bardour-Chab* began to reign *A. D.* 1708.

Of the Chineſe *Hiſtory.*

THE *CHINESE* ſuppoſe that the firſt Man was their firſt Governor, was call'd *Puonceus*, and had his Origin from ſomewhat like an Egg. How this Country was firſt peopled is uncertain. The firſt King they ſpeak of with any Certainty is *Fohius* or *Fohi*, who ſome think was *Noah*. 'Tis ſaid he was ſucceeded by *Ximungus* 2730 Years before *Chriſt*. *Yous* was the laſt of the elected *Emperors*, and founded the Imperial Race of *Hiaa*, which was about 2207 Years before Chriſt. This continued in a Line of 17 Emperors; to which the Family of *Xanga* ſucceeded, about 1766 Years before Chriſt. This produced 28 Emperors, and laſted till about 1122 Years before Chriſt; when the Family of *Cheva* ſucceeded, which produced 37 Emperors, and ended 246 Years before Chriſt. This was ſucceeded by the Family of *Civa* or *Xius*, in the Year before Chriſt 206: This by the Family of *Hana*, which laſted to *A. D.* 264. This was ſubdued by that of *Cyna*, which laſted till *A. D.* 419, in 5 Kings. Then the Family of *Tanga* follow'd, which laſted till *A. D.* 618. Theſe were ſucceeded by the Race of *Sunga*, which govern'd till *A. D.* 1278, when the *Tartars*, after 73 Years War, ſubdued the *Empire*, extirpated the Family, and founded a new one, call'd *Iuena*, which laſted till *A. D.* 1368; when the *Tartars* were expell'd, and one *Xunguons* founded the Race of *Taicinga*, who held the Throne till *A. D.* 1644; when the *Tartars* again conquer'd the Country, and ſet up their Great Cham *Xunchius*, who was ſucceeded by his Son *Cham-Hi*, in *A. D.* 1661, as before related in the Hiſtory of *Great Tartary*.

Of Japan.

JAPAN is a mighty Empire, the Court far outſhining any in *Europe*; but becauſe this *Iſland* was not diſcover'd till the 16th Century, or about *A. D.* 1540, we have no Account of the Genealogy and Succeſſion of *Emperors*, but that they are great and abſolute Lords, and are adored by their Subjects.

IN

Of American *Governments.*

In *AMERICA* the ſeveral Nations and Countries diſcover'd by the *Europeans* are under their Government. Thus *Mexico*, great Part of *Granada*, *Terra Firma*, *Peru*, *Chili*, Part of *Paraguay*, &c. belong to the *Spaniards*: And *New England*, *York*, *Penſilvania*, *Jerſy*, *Maryland*, *Virginia*, *Carolina*, &c. to the *Engliſh*: And other Countries and Iſlands to the *French*, *Dutch*, &c.

Of PHYSIOLOGY, *or* NATURAL PHILOSOPHY.

Physiology defined.

PHYSIOLOGY, according to its Derivation, ſignifies a *Diſcourſe concerning Nature*, or the *Nature of Bodies* in general; and hence it is uſed to denote that Science or Study which enquires into and inveſtigates the Cauſes, Properties and Effects of all *Natural Bodies* objected to our Sight, or falling under the Cognizance of any of our Senſes. For this Reaſon this Study has long been call'd *Phyſics*, and *Philoſophy*, or more commonly, *Natural Philoſophy*; and thoſe who are skill'd therein are call'd *Phyſiologiſts*, *Naturaliſts*, and *Natural Philoſophers*.

Its Subject.

THE *Subject* of this moſt excellent Science being no leſs than the wide and almoſt boundleſs Field of *Senſible Nature*, the Science itſelf muſt needs be *exceeding great*, and of the *laſt Importance*, of which we ſhall proceed to give the following ſhort yet comprehenſive Sketch.

Its Parts, Somatology.

NATURAL PHILOSOPHY then may be properly divided into *Four Parts*, viz. (1.) *Somatology*, which contemplates the Nature of *Matter* in general, and its Properties, Accidents and various Modifications in all Natural Bodies. (2.) *Uranology*, which diſcourſeth of the *Conſtitution of the Heavens*, and the great Bodies of the Sun, Moon and Planets therein. (3.) *Aerology*, which treats of the Nature of the *Atmoſphere*, and the various *Meteors* thereof. (4.) *Geology*, which takes a View of the *Earth* and *Sea*, with all their various Productions.

Uranology.

Aerology.

Geology.

Of

Of SOMATOLOGY.

SOMATOLOGY is (according to its *Etymon*) the Doctrine of *Natural Bodies*, and conſiders the *Original* and *Eſſential Properties* of *Matter*, of which they are variouſly compoſed. *Of Somatology.*

MATTER itſelf is that which we generally call the *Subſtance* of Things, or *that* of which all Things do *conſiſt*, under different *Forms* and *Modes*. *Of Matter.*

THE Properties of *Matter* or *Body* are twofold, viz. (1.) *Eſſential* and *common* to all Bodies. (2.) *Specific* and *Accidental*, which happen to Bodies not *neceſſarily* from the *Nature* of *Matter*, but *caſually* and *comparatively* only. *Its Properties, Eſſential or Accidental.*

THE *Eſſential Properties* of all Bodies or Matter are theſe, (1.) *Extenſion*, for all Matter is *extended*. (2.) *Solidity*, for every Particle of Matter is *impenetrable*. (3.) *Diviſibility*, for all Matter may be *divided* into ſtill leſſer Parts. (4.) *Mobility*, for all Bodies are capable of *Motion*. (5.) *Figurability*, all Bodies having ſome *Form* or *Figure*. (6.) *Gravity*, for all Bodies have ſome *Weight*. (7.) *Menſurability*, for all Bodies have ſome *Dimenſions*. (8.) *Inactivity*, for no Matter can act or move of itſelf. (9.) *Ubiety*, for all Bodies occupy ſome *Place*. (10.) *Durability*, for no Part of Matter can be *annihilated*. *Eſſential Properties.*

EXTENSION is the Quantity of *Bulk* or *Size* into which the Particles of Matter are diſpoſed, or *extended*; for there is no Body which has not *Length*, *Breadth* and *Thickneſs*, which make what we call the *Extenſion* of Bodies. *Of Extenſion.*

SOLIDITY is that Property of Body, whereby it excludes all others out of the Place which it poſſeſſeth; for no two Bodies can poſſibly be in one and the ſame Place at the ſame time. Hence the Matter of the *ſofteſt* Bodies is equally *ſolid* with that of the *hardeſt*: Thus a *cubic Inch* of *Water* will no more than a *cubic Inch* of *Adamant* be compreſs'd into leſs than a *cubic Inch* of *Space*. *Solidity.*

DIVISIBILITY is a Property of Matter which follows from the laſt; for ſince two Particles of Body cannot exiſt together, or in the ſame Place, *Diviſibility.*

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'tis neceſſary they ſhould exiſt *ſeparately*, or in *different Places*; and ſo may be conſider'd as *diſtinct* or *ſeparate* from each other, which is all that is meant by their being *divided*. The *actual* Diviſion of Matter is very ſurprizing, as is manifeſt from the Nature of *Odours*, *Perfumes*, *Tinctures*, *Light*, and ſeveral other Experiments on Bodies. And the *Infinite Diviſibility* of Matter is eaſily proved by *Geometry*.

Mobility. *MOBILITY* is a Property which follows from the *Diviſibility* of Matter, and its being *finite*; for ſince Matter is diviſible into Parts, and does not fill all Space, 'tis poſſible for one Part of Matter to be made to *change its Place*, or be removed from one Part of abſolute Space to another, which is call'd *Motion*, or *local Motion* of a Body.

Figurability. *FIGURABILITY* is that univerſal Property of Body, whereby it is neceſſitated to appear in or put on ſome Shape or Form or other; for ſince all Particles of Matter are *finite*, they muſt be contain'd within certain Bounds or Extremities, which muſt have ſome kind of *Mode* or *Faſhion*; which as it reſults from mere Contingency, is infinitely various, and is call'd the *Formality* or *Modification* of Bodies.

Gravity and Attraction. *GRAVITY* is that univerſal Diſpoſition of Matter whereby a *leſſer Part* is carried towards the Center of any *greater Part*; thus all Parts of Matter, or Bodies on the *Earth*'s huge Surface, have a Tendency to deſcend to its Center or Middle Part: And this is call'd their *Weight*; and *Gravitation* in the leſſer Body, but *Attraction* in the greater; becauſe it does, as it were, *attract* and *draw* that leſſer Body to itſelf. Some diſtinguiſh *Attraction* into that of *Coheſion* and *Gravitation*. *Attraction* of *Coheſion* is that whereby very *minute Bodies*, or the Particles of the *ſame Body* are mutually drawn towards one another, and made to *cohere* and *ſtick* together. The Sphere of this *Attraction* is very ſmall, for it acts only upon *Contact*, or at very ſmall Diſtances, and in Proportion to the Surfaces of the *attracting Bodies*. *Attraction* of *Gravitation* is that whereby larger Bodies attract and act upon one another, whoſe Sphere of *Attraction* is very great. This *Attraction* is always proportional to the *Quantity* of *Matter* in Bodies, and *decreaſes* as the

Squares of the *Diſtances* between the Centers of attracting Bodies *increaſe*.

ELECTRICITY is a kind of *Attraction* and *Repulſion* of very light Bodies alternately, by certain poliſh'd Surfaces chafed or heated by Rubbing, or *Friction*: Thus *Glaſs*, *Sealing-Wax*, *Amber*, and *Precious Stones*, attract and repel *Feathers*, *Hairs*, *Straws* and other light Bodies at conſiderable Diſtances, as known by common Experiments. Note, if a Glaſs Tube be emptied of Air, it loſes its *Electrical Quality*. *Electricity.*

MAGNETISM is another very ſurpriſing Species of *Attraction*, which that *Foſſil* call'd the *Loadſtone* is endow'd with. Every one knows its ſtrange Power of *attracting* and *repelling Iron*; and the Virtue it communicates to the Mariner's Compaſs, whereby it is determin'd to point to, or very near the *North Pole*. Note, the *Magnet* loſes its Quality by being made red-hot in the Fire. *Magnetiſm:*

GRAVITY is diſtinguiſhed into *Abſolute* and *Specific*. *Abſolute Gravity* is that which every Body has in itſelf *ſimply* conſidered; *Specific Gravity* is that which is conſider'd in a Body compar'd with the Gravity of any other, and is ſaid to be either *greater*, *equal* to, or *leſſer* than it: Thus if the *Gravity* of *fine Gold* be 11, and that of *fine Silver* 6, the *Specific Gravities* of Gold and Silver are ſaid to be to each other as 11 to 6. Note, in Spaces *void of Air* all Bodies gravitate alike; or a *Feather* and a *Stone*, being let fall together, deſcend with equal *Velocity* or *Swiftneſs*. *Abſolute and Specific Gravity.*

MENSURABILITY is another univerſal Property of Bodies; for as all Bodies are extended into the *Dimenſions* of *Length*, *Breadth*, and *Thickneſs*, ſo it is poſſible for the Contents or Quantity of Space included within thoſe *Dimenſions*, or under the *Extremities* of thoſe Bodies, to be compared, and the *Ratio* or *Proportion* between them found and determin'd; which is call'd the *Menſuration*, or *Meaſuring* of Bodies. *Menſurability.*

INACTIVITY or *Paſſiveneſs* of *Matter*, is its Diſpoſition to abide or continue in its State of *Motion* or *Reſt*, till it is made to alter the ſame by the *Action* of *Inactivity.*

of ſome external Force. And from this Principle are deduc'd thoſe *Laws of Motion*, which are call'd the *Laws of Nature* by Sir *Iſaac Newton*, viz.

Of the Laws of Nature.

LAW I. All Bodies continue in their State of *Reſt* or *Motion*, uniformly in a *right Line*, till they are obliged to change that State by the Impreſſion of external Forces. Thus a *Wheel* whirl'd round would always continue that circular Motion, were it not for the *Reſiſtance* it meets with from the *Air*, and *Friction* of the *Axle*.

LAW II. All *Change* of Motion is proportional to the *Power* of the Force which cauſes it, and in the ſame *Direction* with the ſaid Force. This *Law* is as evident as that every *Effect* is proportionable to its *Cauſe*.

LAW III. *Re-action* is always equal and contrary to *Action*; for when one Body acts on another, that other Body *re-acts* with *equal Force* upon the firſt, and in a *contrary Direction*. Thus when a *Sledge* ſtrikes the *Anvil*, the *Anvil* returns an *equal Stroke* on the *Sledge*, and makes it rebound. So when an *Horſe* draws a Stone with a Rope, the Rope being equally ſtrain'd throughout, plainly argues the *Stone* ſtretches it equally with the *Horſe*, and therefore draws the *Horſe* as much as the *Horſe* draws it; and therefore ſince theſe Forces are equal and contrary, they would deſtroy one another, *i. e.* neither *Horſe* nor *Stone* would move, were it not that the *Horſe* obtains an additional Force, by puſhing or thruſting himſelf forwards againſt the Ground.

Ubiety.

UBIETY is that *Affection* of all Bodies, whereby they neceſſarily take up and poſſeſs ſome *Place*, or Part of *Space*.

Space.

SPACE is a *mere Void*, infinitely extended every Way; or it is that Part of the Univerſe in which *nothing exiſts*, or is entirely *empty of all Matter*. And though all Bodies muſt occupy or fill ſome Part of this *infinite Void* of Space, and which is call'd their Place; yet ſince Matter is not *infinite*, it cannot fill *infinite Space* completely, but there will be ſome *Interſtices* of *empty Space*, which the Philoſophers call a *Vacuum*, though the *French* (who have a *Superſtitious Philoſophy* as well as *Religion*) are abſurd enough to deny this moſt evident Truth.

A Vacuum.

DURA-

DURABILITY, or *Duration* of Matter, may be reckon'd another of its Properties; ſince 'tis certain, that though the *Form* and *Texture* of Bodies may be any how *deſtroy'd* and *chang'd*, yet their *Subſtance* cannot be *deſtroy'd*, *chang'd*, nor *diminiſh'd* in the leaſt; for to *annihilate* or reduce *Matter* to *mere Nothing* is as much an *Impoſſibility*, as to produce it from *mere Nothing*; and both in the Nature of Things as abſurd to ſuppoſe, as *Motion* in an *abſolute Plenum*, or any other *Inconſiſtency* imaginable. *Durability.*

THE *Specific* or *Accidental Properties*, which are call'd the *Qualities* of *Natural Bodies*, are next to be conſidered, and are theſe, *viz.* (1.) *Light.* (2.) *Colours.* (3.) *Sound.* (4.) *Denſity* and *Rarity.* (5.) *Tranſparency* and *Opacity.* (6.) *Hardneſs* and *Softneſs.* (7.) *Rigidity* and *Flexibility.* (8.) *Conſiſtence* and *Fluidity.* (9.) *Heat* and *Cold.* (10.) *Humidity* and *Siccity.* (11.) *Elaſticity.* (12.) *Odours* and *Sapours.* *Of the Specific or Accidental Properties of Matter.*

LIGHT is the *Quality* of that ſort of Matter we call *Fire*, which renders all *Objects* from whence it proceeds *viſible*, as well as thoſe which receive it. It conſiſts of very ſmall Particles, which come from the *luminous* or *radiant* Body in right Lines to the Eyes, with ſuch an *incredible Velocity*, that the Light arrives to us from the *Sun* in about ſeven Minutes and a half, which is about 81000000 Miles, which is near 200000 Miles in a *Second* of Time. The Surfaces of moſt Bodies *reflect Light*, by which means they become *viſible* and *colour'd*; for thoſe which reflect none appear *dark* and *black*. *Light* in paſſing through any *Medium*, as *Air*, *Water*, *Glaſs*, &c. is refracted, or broke out of its ſtrait Courſe into another, which is nearer the Perpendicular of the Surface, if a *thicker Medium*; but farther from it, if into a *thinner Medium*. And this *Refrangibility* of a *Ray of Light* is different in the ſeveral Parts of it, according to the *different Colours* contain'd therein; of which we ſhall next ſpeak. *Of Light.*

COLOUR is that Quality of Bodies whereby they appear of ſome certain *Hue* or *Complexion*; and which is better known than deſcribed. The *Colours* of Bodies are all of them from the Rays of Light originally, and exiſt therein in the following Order; 1 *Red*, 2 *Orange*, *Colour.*

Orange, 3 *Yellow*, 4 *Green*, 5 *Blue*, 6 *Indigo*, 7 *Violet*. When Light is refracted, as through a Prism, &c. the *Red-colour'd Rays* fall loweſt, and the *Violet* the higheſt, the others fill the intermediate Spaces; all which are, in reſpect of Quantity, in a *Muſical* or *Harmonical Ratio*; and Bodies only appear *Red*, *Yellow*, *Blue*, &c. becauſe the Matter of which they conſiſt reflects a greater Quantity of *Red*, *Yellow*, *Blue*, &c. *Rays* than of others; and thoſe Bodies which reflect promiſcuouſly all the Rays which fall on them appear *White*; and thoſe which reflect none appear *Black*, as has been ſaid.

Sound. *SOUND* is an *Effect* cauſed by ſtriking of a *ſonorous* Body; for the tremulous Motion of the Parts occaſion'd thereby agitates the Air, and produces ſuch *Undulations* or *Pulſes* thereof as are like to *Waves* in Water; theſe ſtriking on the Drum of the Ear excite the Idea of *Sound* in the Brain by means of the *Optic Nerve*. It is propagated in *concentric Spheres* around the *ſounding Body*. The *Air* is the *Medium* of *Sound*, ſince none can be produced in an *exhauſted Receiver* in an *Air-Pump*. *Sound* flies at the rate of 1142 Feet in a *Second* of Time; and may be heard at the Diſtance of 180 or 200 Miles. *Echo* is the *Reverberation* or *Repercuſſion* of a *Wave* or *Pulſe* of Air from the Surface of Obſtacles, as *Vaults*, &c. whence flying back, it ſtrikes our Ears with the ſame, but more *obtuſe Sound* than the firſt. Of *Sounds*, there is great Variety of *Tones*, *Tunes*, or *Notes*, with reſpect to *Acuteneſs* and *Gravity*; ſome of which being pleaſant and agreeable, are call'd *Concords*, the others *Diſcords*; from a various and artful Compoſition of which ariſes the *Heavenly Art of Muſic*.

Echo.

Denſity and Rarity. *DENSITY* and *RARITY* of Bodies are commonly underſtood of their *greater* or *leſſer Quantity* of *Matter* contain'd under the ſame Bulk, and therefore the *Denſity* of Bodies is in a *Ratio* compounded of the *direct Ratio* of their Quantities of Matter, and a *reciprocal Ratio* of their Bulks. Thus if A has 8 Parts of Matter, and 5 Degrees of Magnitude, and B has 2 Parts of Matter, and 10 Degrees of Bulk, then the Denſity of the Body A will be to that of B, as 2×5 to 8×10, that is, as 10 to 80, or as 1 to 8. The Denſi-

Denſity of Bodies is increaſed by *Heat*, which by dividing and expanding the Particles of Bodies, does attenuate and rarify them, and this is call'd *Rarifaction*. On the contrary, *Cold*, by uniting and combining the ſame Particles, doth *thicken* and *condenſe* them, and this is call'd *Condenſation*, and in ſome Caſes *Coagulation*.

TRANSPARENCY is that Quality in Bodies whereby they tranſmit Light through their Subſtance, and by which means they become throughly enlightened, and Objects are viſible thro' them. Such Bodies are ſaid to be *tranſparent*, *pellucid*, or *diaphanous*, as *Water*, *Glaſs*, *Cryſtal*, &c. *Tranſparency*.

OPACITY is the oppoſite Quality of Bodies, and thoſe Bodies are ſaid to be *opake*, whoſe *Subſtance* is dark and not tranſparent, and is occaſion'd by the Light's being obſtructed, or deflected from a *right Paſſage* through them. *Opacity*.

HARDNESS is a Quality of ſome Bodies, ariſing from the mutual Attraction of the moſt minute primogenial Particles of Matter, whereby they firmly cohere, and are conſolidated ſo cloſe together, that they will not yield to the *Touch*. And the nearer the *Figure* of theſe Particles approaches to the five *Regular Bodies*, the ſtronger will be the *Attraction*, and the greater their *Coheſion*, and the *Firmity* or *Hardneſs* of the Body thence ariſing. *Hardneſs*.

SOFTNESS is ſuch a *Texture* of Bodies, when they yield to the *Impreſſion* of the Finger, and this in various Degrees, the loweſt of which is *Liquidity*. *Softneſs*.

RIGIDITY or *Stiffneſs*, and *FLEXIBILITY* or *Pliableneſs* in Bodies, do likewiſe depend on the *Size*, *Shape*, and peculiar *Texture* of the *Particles* or *Corpuſcles* of Bodies, of which little certain can be ſaid. *Rigidity*.

FIXITY or *Conſiſtence* is a Quality of Bodies, whereby their Particles do naturally keep the ſame Poſition to each other, and are not to be moved or ſeparated from one another but by ſome coercive external Force. This alſo reſults from the *Figure*, *Attraction*, *Contact*, &c. of the *Conſtituent Particles*. *Fixity*.

FLUIDITY is that State of Bodies, by which their Particles are always in a *Flow*, and are diſpoſed *Fluidity*.

to move indifferently in any Direction upon the leaſt *Impreſſion*. This proceeds from the exceeding *Smallneſs*, *Roundneſs* and *Lubricity* of the conſtituent Particles thereof; as of *Fire*, *Water*, &c. *Fluids* and *Liquids* differ in this, that the latter *wetteth* or *ſticketh* to the Finger or Part which touches it, whereas the former doth not; as *Sand*, &c. is a *Fluid*, but not a *Liquid*.

Heat and Cold *HEAT* and *COLD* are the moſt general and obvious Qualities in Bodies. The former conſiſts in a great *Agitation*, and violent inteſtine Motion of the Particles of *hot Bodies*, which acting on us, excites that *Idea* in our Minds. On the contrary, Cold proceeds from the *Inactivity* and *motionleſs State* of the Particles of cold Bodies. *Heat* may ariſe to ſuch a Degree in Bodies as to render the Particles *luminous* and *fluid*, which is call'd a *Flame* of *Fire*; and *Cold* may be augmented ſo far as to render *fluid* Bodies *fix'd* and *ſolid*, which is call'd *Congelation* or *Freezing*; thus *Water* we ſee is *congeal'd* or *frozen* into *Ice*.

Humidity. *HUMIDITY* ariſes from a Mixture of *liquid Particles* with thoſe of a *fix'd Nature* in Bodies. And thus by exhaling and evaporating this Quantity of *liquid Matter* from Bodies, their *Moiſture* ceaſeth, and they are ſaid to be *dry*, or in a State of *Siccity*, which is deficient of all *liquid Particles*.

Elaſticity. *ELASTICITY* is that which we vulgarly call *Springineſs* in ſome Bodies; by this Quality they do, when *bended* or *preſs'd*, immediately return to their firſt *Figure* or *Form*, of their own accord. This Property is more or leſs in all Bodies; but none are perfectly *elaſtic*, or which recover their *Figure* with the *ſame Force* they loſt. The Cauſe of *Elaſticity* depends on a ſpecial *Configuration*, *Mode*, and *Attraction* of the Parts of *Elaſtic Bodies*.

Odours. *ODOURS* of Bodies are thoſe exceeding fine and inviſible Parts which continually fly off the *odoriferous Body*, and perfume the Air around with Smells and Scents of various kinds; theſe *Effluvia* (as they are call'd) arriving at our *Noſtrils*, affect the *Olfactory Nerve*, and thereby excite the *Ideas* of *Odours* and *Smells* in our Minds.

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SAPOURS or *Taſtes* are, in like manner, *Ideas* raiſed in the Mind by means of certain *Saporific Particles* in Bodies affecting the *Nervous Papillæ* of the Tongue, which are the Organs of *Taſtes*. *Sapours.*

Of URANOLOGY.

URANOLOGY, or what I have elſewhere call'd *Coſmology*, is the ſecond great Part of *Natural Philoſophy*, and is the Doctrine of the Heavens and Ethereal Regions above the Atmoſphere of Air, in and through which the great and ſplendid Bodies of the *Sun*, the *Planets*, the *Comets*, and the *Stars* are ſeen to move, which there become the Subject of this Part of *Phyſiology*. *Uranology* then may be conſidered under the following Branches, *viz.* (1.) *Heliography*, which treats of the *Sun*. (2.) *Selenography*, which treats of the *Moon*. (3.) *Planetography*, which treats of the *Planets*. (4.) *Cometography*, which treats of the *Comets*. (5.) *Aſtrography*, which treats of the *Fix'd Sars*; of which in order. *Of Uranology, or Coſmology.* *Its Parts.*

HELIOGRAPHY is the *Philoſophical Doctrine* of the *Sun*, which is briefly ſumm'd up under the following Articles. (1.) The *Sun* is the Center of a Syſtem of ſix great Bodies call'd *Planets*, which continually move around him. (2.) The *Sun* is the Fountain of native *Light* and *Heat*, which is communicated from him to the *Planets*. (3.) His *Diameter* is computed to be 822148 *Engliſh* Miles, and his ſolid Content 290971000000000000 Miles. (4.) The *Quantity* of *Matter* in his Body is to that in the *Earth* as 10000000 to 59. (5.) The *Weight of Bodies* on his Surface to their Weight here, as 10000 to 435. (6.) His *Denſity* to that of the Earth, as 1 to 4. (7.) On his Surface appear certain dark Spots call'd *Maculæ Solares*, which often change their *Place*, *Number* and *Magnitude*; but what they are is not known. (8.) If thoſe Spots are really in the *Sun*'s Body, they prove him to have a *Motion* about his Axis in about 25 Days and 6 Hours, elſe he hath none. (9.) His *daily Motion*, from *Eaſt* to *Weſt*, is not *real*, but *apparent*, ariſing from the *true Motion* of the *Earth* on which we live. *Heliography, or Doctrine of the Sun.*

Selenography, or Doctrine of the Moon.

SELENOGRAPHY hath for its Subject a *Deſcription of the Moon* pertaining to our Earth; for though there be other Moons in the Planetary Syſtem, yet they are not conſiderable enough to be mention'd with this *great* (tho' *ſecondary*) *Luminary*. In the *Moon* then we obſerve, (1.) That her Body is *dark*, *uneven*, *ſpherical*, and like to our Earth in *Matter* and *Form*. (2.) That the *bright Parts* are the more eminent and illumin'd Parts of *Land*, as *Mountains*, *Iſlands*, &c. (3.) The dark Parts are thought to be *Seas*, *Lakes*, *Vales*, &c. which reflect no *Light*. (4.) 'Tis ſaid by ſome there is an *Atmoſphere* of *Air* about her; and if ſo, then (5.) There is *Wind*, *Clouds*, *Rain*, and all other *Meteors* as here. (6.) And of conſequence the *Moon* is inhabited by *rational* as well as various other *Animals*. (7.) The *Diameter* of the *Moon* is about 2175 *Engliſh* Miles, her Circumference 6829, her Superficies 14855440 *ſquare Miles*, and her ſolid Content 5386333000 ſolid or *cubic Miles*. (8.) The *Moon* revolves about the Earth, with a very *irregular* and *elliptic Motion*, in about 27 D. 7 H. 43′ at a *Mean Rate*, from *Weſt* to *Eaſt*. (9.) The *Mean Diurnal Arch*, deſcribed by the *Moon*, is therefore 30° 10′ of the *Ecliptic*. (10.) By this means ſhe appears to riſe and ſet each Day about an Hour later than another. (11.) According to the different Poſition of the Moon in her Orb, with reſpect to the Sun and Earth, ſhe puts on various *Aſpects* or *Phaſes*, as *new*, *horn'd* or *cornuted*, *biſected* or *dichotomiz'd*, *gibbous* and *full*. (12.) And ſince the *Moon* never appears at the *ſame Diſtance* from the Sun of a *different Face*, 'tis plain ſhe muſt have a *Diurnal Motion* about her own Axis, compleated in the very ſame time as her *Periodical* or *Menſtrual Revolution* about the Earth is. (13.) So that the *Lunarians* have their Days and Months of equal Length.

Planetography or Doctrine of the Planets.

PLANETOGRAPHY is a Deſcription of the *Natural Affections* and *Phænomena* of the *Planets*: The Principal of thoſe which are common to all of them, are as here ſet down. (1.) They all revolve about the *Sun* as the Center of the Syſtem, *viz.* *Mercury* ☿, *Venus* ♀, the *Earth* ⊕, *Mars* ♂, *Jupiter* ♃, *Saturn* ♄; and in the Order from the *Sun* as they are

here named. (2.) The Form of all their Orbs is *Elliptical*, ſome more than others. (3.) In their Orbs they deſcribe *Areas* (by a Line drawn to the *Sun*) *proportional* to the *Times*. (4.) Their Velocity is always reciprocally as their Diſtance from the *Sun*, in any Point of their Orbs. (5.) The *Attraction* or *Action* of the *Sun*, at each of them, is reciprocally as the *Squares of the Diſtances* from the *Sun*. (6.) The *real Motion* of them all is from *Weſt* to *Eaſt*, tho' ſometimes they appear to move from *Eaſt* to *Weſt*; and ſometimes they appear not to move at all: And thus they are ſaid to be *direct*, *retrograde*, and *ſtationary*. (7.) The *Earth*, *Jupiter*, and *Saturn*, are many times eclipſed by the Interpoſition of their *Moons* between the *Sun* and themſelves, which are ſometimes *partial*, ſometimes *total*, and ſometimes *central* Eclipſes. (8.) The Orbit of the *Earth*, or that in which the *Sun* appears to move, is call'd the *Ecliptic*, which is divided into twelve equal Parts, call'd *Signs*, viz. *Aries*, the Ram ♈; *Taurus*, the Bull ♉; *Gemini*, the Twins ♊; *Cancer*, the Crab ♋; *Leo*, the Lion ♌; *Virgo*, the Virgin ♍; *Libra*, the Balance ♎; *Scorpio*, the *Scorpion* ♏; *Sagittarius*, the Archer ♐; *Capricornus*, the Goat ♑; *Aquarius*, the Waterer ♒; *Piſcis*, the Fiſh ♓. (9.) The Orbs of the other Planets are not in the Plane of the *Ecliptic*, but are differently inclined thereto in a certain Angle. (10.) The *Common Interſection* of thoſe Planes, with the Plane of the *Ecliptic*, is called the *Line of Nodes*; becauſe, (11.) The Extremities of theſe Lines in the *Ecliptic* are called the *Nodes*, where the Planet aſcends or deſcends below the Plane of the *Ecliptic*; the former is called the *Dragon's Head* ☊, and the other the *Dragon's Tail* ☋. (12.) The Point in the Orb, moſt diſtant from the *Sun*, is called the *Aphelium*, and that neareſt the *Perihelium*: Beſides theſe general Things, the Planets have each ſome *Peculiarities*.

Saturn has a moſt ſurprizing *Phænomenon*, call'd his *Ring*, which, like the *annular Border* of a Pewter Diſh, encompaſſes his Body at the Diſtance of 21000 Miles, and its *Breadth* is as much more. Saturn's *Ring*.

Jupiter's *Belts* *Jupiter* has the Appearance of *Belts* girding his Body; concerning which there are various Conjectures, but nothing certainly known.

Jupiter, *Mars*, and *Venus*, are also observed to have dark Spots on their Disk.

The Satellites of Jupiter *and* Saturn. THE *Earth*, *Jupiter*, and *Saturn* have a System of Secondary Planets, call'd the *Satellites* or *Moons*; the *Earth* 1, *Jupiter* 4, and *Saturn* 5, whose *Distances* and *Periodical Times* are as here set down.

		D.	H.	M.			
Jupiter's	1 Satellite	1	18	27	Distant in Semidiameters of *Jupiter*	$5\frac{2}{3}$	from his Center.
	2 ——	3	13	13		9	
	3 ——	7	3	42		$14\frac{1}{3}$	
	4 ——	16	16	32		$25\frac{1}{3}$	
Saturn's	1 Satellite	1	21	18	Distant in Semidiameters of *Saturn*'s Ring	$1\frac{9}{10}$	from *Saturn*'s Center.
	2 ——	2	17	41		$2\frac{2}{5}$	
	3 ——	4	12	25		$3\frac{2}{5}$	
	4 ——	15	22	41		8	
	5 ——	79	22	4		$23\frac{3}{10}$	

A Synopsis

A Synopsis of the chief Properties of the PLANETS.

A Synopsis of the chief Properties of the PLANETS.

Titles.	*Mercury*	*Venus*	*Earth*	*Mars*	*Jupiter*	*Saturn*
Greatest Apparent Diameter.	′ ″ ‴ 0 11 48	′ ″ ‴ 1 5 58	′ ″ 32 47 Sun	′ ″ ‴ 0 20 50	′ ″ ‴ 0 24 12	′ ″ ‴ 0 19 40
Least Apparent Diameter.	′ ″ ‴ 0 4 4	′ ″ ‴ 0 9 34	′ ″ 31 40 Sun	′ ″ ‴ 0 2 46	′ ″ ‴ 0 14 36	′ ″ ‴ 0 14 11
Proportion of Diameters to the Sun's 1000.	4	12	12	6	181	137
Diameters in Miles.	2460	7906	7964	4444	81155	67870
Mean Dist. from the Sun.	38710	72333	100000	152369	520110	953800
The same in Miles.	32000000	59000000	81000000	123000000	424000000	777000000
Daily Mean Motions in their Orbits.	° ′ ″ 4 5 32	° ′ ″ 1 36 8	° ′ ″ 0 59 8	° ′ ″ 0 31 57	° ′ ″ 0 4 59	° ′ ″ 0 2 0
Their Periodical Revolutions.	D. H. M. 87 23 16	D. H. M. 224 16 49	D. H. M. 365 6 9	D. H. M. 686 23 27	D. H. M. 4332 12 20	D. H. M. 10759 6 36
Their Diurnal Revolutions	* * *	0 23 0	0 23 56	1 0 40	0 9 56	* *
Eccentricities.	7970	517	1690	14100	25050	54700
Place of the Aphelium.	♑ ° ′ ″ 13 7 54	♒ ° ′ ″ 4 19 54	♑ ° ′ ″ 8 1 10	♏ ° ′ ″ 0 31 54	♎ ° ′ ″ 9 9 54	♑ ° ′ ″ 27 49 54
Place of the Node ☊.	♉ 15 1 54	♊ 14 25 54	* * *	♉ 18 29 54	♋ 7 19 54	♋ 21 49 54
Inclination of the Orb.	6 54 0	3 24 0	* * *	1 52 0	1 20 0	2 30 0
Propor. of Light and Heat	700	200	100	40	37	11
Moons attending them.	*	*	1	*	4	5

COME-

Cometography, or Doctrine of the Comets.

COMETOGRAPHY is the Doctrine of *Comets* or *Blazing Stars*; their Bodies are ſaid to be *ſolid, compact, fix'd,* and *durable Subſtances*; they are but a different kind of *Planets*, and move about the Sun in Orbs vaſtly *elliptical* and *excentric*, ſome more ſo than others; and therefore their *periodical Revolutions* are very great for the moſt part, the leaſt we know being 75 ½ Years. There are three Sorts of *Comets*: (1.) *Cometa Crinita*, having a *Tail* like that of an *Horſe*. (2.) *Cometa Barbata*, having a *Tail* like a *Beard*. (3.) *Cometa Enſiformis*, having a *Tail* like a *Sword*. The Tails of *Comets* are ſuppoſed to be owing to ſome unctuous Matter of their Bodies, which by the Sun is prodigiouſly *heated* and *rarified*, and made to fly off in a *fiery blazing Vapour*, growing ſtill wider and thinner towards its Extremity; their Bodies are diſcover'd to have an Atmoſphere about them; and theſe are the principal Matters yet known of *Comets*, which are related here.

Aſtrography, of the Stars.

ASTROGRAPHY deſcribeth the *Fixed Stars*, whoſe chief *Phænomena* are, (1.) That they are *infinite* in *Number*, at leaſt innumerable, conſider'd all together. (2.) The Number of viſible ones is not great, being not above 400 or 500 in a clear dark Night. (3.) Theſe, together with all that can be diſcover'd by a *Teleſcope*, are not above 3000. (4.) They all ſhine with their native and proper Light, and appear as *Points* only on account of their immenſe Diſtances. (5.) They are therefore ſuppoſed very reaſonably to be ſo many *Suns*, each having a *Syſtem* of *Planets* and *Comets* about him like our *Sun*. (6.) Some new *Stars* appear, and other *Stars* have diſappear'd or been extinguiſh'd, which are by ſome reckon'd to have been the *Planets* or *Comets* belonging to ſome of the neareſt *Fixed Stars* or *Suns*. (7.) The *Galaxy* or *Milky Way* is produced by the united Luſtre of an infinite Number of inviſible Stars in that Region. (8.) The fixed Stars have a ſlow Motion about the *Poles* of the *Ecliptic*, perform'd in 25920 Years, which Space is call'd the *Platonic* or *Great Year*; after the Expiration of which, the *Stars* and all *ſublunary* Things return again to their firſt *State* and *Places*.

Platonic Year.

Of

Of AEROLOGY.

Of Aerology, and its Parts.

AEROLOGY is a *Phyſiological* Deſcription of the *Atmoſphere* or Body of Air environing the Earth on every Part, and of all the *Meteors* in and produced by it. This Part is therefore divided into the following Branches. (1.) *Aerography*, which treats of the *Atmoſphere*, or *Air* in general. (2.) *Anemography*, which treats of the *Winds*. (3.) *Meteorography*, which treats of the *Meteors*, and other *Celeſtial Phænomena*.

Aerography, or Doctrine of the Atmoſphere

AEROGRAPHY deſcribes the Nature, Properties, and various Affections of the *Atmoſphere* or *Air*, which are reducible to the following Heads. (1.) The *Atmoſphere* is that huge *Body* or *Shell* of Air, which incloſes the Earth all around, and extends to a conſiderable Height, viz. about 40 or 45 Miles. (2.) The *Denſity* of the Air gradually decreaſes as its Height increaſes. (3.) The Particles of Air are ſo very fine, and of ſuch a Nature, as to render the whole Body of Air *pellucid* or *diaphanous* to that Degree as to be *inviſible*. (4.) The Air is alſo *fluid*, but not *congealable* like Water. (5.) It is capable of being *rarified* and *condenſed*, to a very great Degree. (6.) It is very *elaſtic*, or endued with an *elaſtic* Power or Force. (7.) The *Weight* of the Air is very great, no leſs than 2000 *lb.* on every *Square Foot* of the Earth's Surface. (8.) From the Preſſure of which the *Mercury* riſes in the *Barometer*, and the *Water* in the *Pump*, &c. (9.) It is the *Medium* of all *Sound*; for a *Bell* ſtruck in an *exhauſted Receiver* cannot be heard. (10.) It is the *Medium* which diffuſes *Light*; for were there no *Atmoſphere* to refract the Sun's Rays all around, the Heavens would appear as dark in the Day-time as at Night; and the *Sun*, *Moon*, and *Stars* only would appear *viſible*. (11.) It is the *Means of Life*, inaſmuch as by its *Preſſure* and *Elaſticity* it ruſhes into and diſtends the *Lungs*, and keeps them playing in *Inſpiration* and *Expiration*. (12.) It communicates a *Vital Principle* or *Spirit* to *Animals*, which the Fire deſtroys; for no Creature can live in *aduſt* or *burnt Air*, or ſuch as has paſs'd thro' the *Fire*. (13.) It is neceſſary for *Vegetation*; for Plants and Trees

Trees *reſpire* the *Air*, on which their *Vegetative Life* depends. (14.) It is an univerſal *Menſtruum*, which diſſolves all Bodies in Time, and reduces their Subſtances to *new Forms*; as *Iron* into *Ruſt*, *Copper* into *Verdigreaſe*, &c.

Anemography, or Doctrine of the Wind.

ANEMOGRAPHY is the *Phyſiological Doctrine* of the *Wind*. (1.) The *Wind* is nothing but a *Stream* or *Current* of *Air*, as a *River* is of *Water*. (2.) Any thing which deſtroys or diſturbs the *Equilibrium* of the Air may be the *Cauſe* of *Wind*; as *Heat*, *Eruptions* of *Vapours*, *Rarefactions* and *Condenſations*, *Fall of Rains*, *Preſſure* of the *Clouds*, &c. (3.) The *Winds* have *various Qualities*; ſome being *violent*, others *gentle*; ſome *hot*, others *cold*; ſome *conſtant*, others *mutable*; ſome *moiſten* and *diſſolve*, others *dry* and *thicken*; ſome *raiſe Rain*, others *diſperſe* it; ſome *intermittent* and *unequal*, others *ſerene* and *ſmooth*, &c. (4.) Some Winds blow conſtantly from one Quarter, and are call'd *General Trade-Winds*; as on each Side the *Equator* to near 30 Degrees Latititude, in the *Atlantic*, *Ethiopic*, and *Pacific Oceans*: Which proceeds from the Sun's rarifying the Air over thoſe Parts, and the flowing in of the *denſer Air* from the diſtant Parts of each *Hemiſphere*. (5.) Some *Winds* blow only *one Half* or *one Quarter* of the *Year* one way, and then the contrary, which are call'd *Monſoons*, or *Periodical Trade-Winds*; theſe are found in the *Arabian*, *Indian*, and *Chineſe Seas*; for the Cauſe whereof ſee the *Philoſophical Grammar*. (6.) The *Velocity* of Wind is at the Rate of 50 or 60 Miles in a *great Storm*, and a common *briſk Wind* about 15 Miles an Hour; and ſome move not one Mile an Hour. (7.) The Uſe of the Wind is very great, in *cooling* and *cleanſing* the Air from all *poiſonous Contagions*, and *peſtilential Exhalations*; and thereby keeping it *pure* and *healthful*. The Winds alſo carry the *Clouds*, and diſtribute the *Rains* to the ſeveral Parts of the Earth; with many other excellent Uſes.

Meteorography

METEOROGRAPHY is a Deſcription of the *Meteors* of the Air; as *Vapours*, *Clouds*, *Rain*, *Thunder*, &c. which here follow in Order.

Vapours.

VAPOURS, of which moſt *Meteors* proceed, are a Body of aqueous Particles ſome-how ſeparated from the Surface of the *Water*, or *moiſt Earth*, by the Action

Action of the Sun's Heat, and are ſo ſmall as to be ſpecifically lighter than Air, into which therefore they riſe and float, and form the *Clouds*.

MISTS and *FOGS* are a *Commixture* of *Vapours* and *Exhalations*; the *latter* as they *viſibly* ariſe and aſcend from *particular Places*, as *Rivers*, *Lakes*, *Fens*, *Marſhes*, &c. and the *former* as they deſcend and fill the Air, and render it more opake than uſual. *Miſts and Fogs.*

CLOUDS are nothing elſe but *Miſty Vapours* ſuſpended aloft in the Air, and ſoaring on the Wings of the Wind: Theſe, when by the Agitation of Winds, the Sides of Mountains, or any other Means, they are driven together, and condenſed into yet thicker and darker Clouds, become ſpecifically heavier than Air, and deſcend in *Drops of Rain*. *Clouds.* *Rain.*

SNOW is occaſion'd from Particles of Vapours frozen into *Icicles* in the *Cold Regions* of the higher Air, which being heavier than Air, fall down, and in their Deſcent ſeveral of them ſtriking together, coaleſce, and form *Fleeces* of *Snow*. *Snow.*

HAIL proceeds from Drops of Rain congeal'd into Ice by *Nitrous Particles* which they meet with in their Deſcent through the inferior Air. *Hail.*

ICE and *FREEZING* are ſuppoſed to be the Effects of *Nitrous Particles*, which being *ſharp* and *pointed*, inſinuate themſelves into the Pores of *Water*, *Dew*, &c. and do thereby *fix*, *cryſtalize*, and harden the Superficies thereof into the Subſtance we call *Ice*, and *Froſts*, &c. *Ice and Freezing.*

THUNDER proceeds from an heterogeneous Commixture of the *Effluvia* or *Exhalations* of *ſulphurous*, *nitrous*, and inflammable Bodies in the Air, which *ferment*, *kindle* into *Flames*, and make *horrible Exploſions* (like Gun-powder) which we call *Thunder* and *Lightning*. *Thunder and Lightning.*

THE *AURORA BOREALIS*, or *Northern Lights*, are produced alſo from *Nitro-ſulphurous Vapours*, which are thinly ſpread through the *Atmoſphere* higher than the Clouds, and by *Fermentation* take *Fire*, and the *Exploſion* of one Portion kindling the next, the *Flaſhes* ſucceed one another till all the *Vapour* within their Reach is ſet on *Fire*, the *Streams* whereof will appear to converge towards the *Zenith* of the *Spectator*, or the Point over our Heads. *Aurora Borealis.*

THE

Ignis Fatuus. THE *IGNIS FATUUS*, or *Jack-with-a-Lanthorn*, is supposed to be nothing but a *fat*, *unctuous* and *sulphurous Vapour*, which appears *lucid*, and is wafted about by the Air, near the Earth's Surface, like a Light in a *Lanthorn*. Such like Vapours kindling in the serene Air in the Night, appear like *falling Stars*, and are therefore so call'd.

The Rain-Bow. THE *RAIN-BOW*, one of the finest of the *Phænomena* of Nature, exists in falling *Rain* or *Dew*, and is produced by *Reflection* and *Refraction* of the Sun's Rays in the *aqueous Particles*; the *Manner* whereof, and the *wonderful Properties* of the *Bow*, too large and many to be here explain'd, may be seen in my *Philosophical Grammar*.

Halo's. *HALO'S* are those Circles which are seen sometimes to encompass the *Sun* and *Moon*, and are often variously colour'd; they always appear in a *rimy* or *frosty Sky*, and proceed from the *Refraction* only of the Light in the *Hail-stones* in the Air. Their Diameter is generally about 45 or 46 Degrees.

GEOLOGY.

Of Geology, and its Parts. *GEOLOGY* is a Physiological Description of the *Terraqueous Globe*, so call'd as consisting of *Land* and *Water*. This Branch of *Philosophy* is divided into two others, *viz.* (1.) *Geography*, which treats of the *dry Land*, and (2.) *Hydrography*, which treats of the *watry Parts* of the Globe, and the Properties of *Water* in general.

Geography. *GEOGRAPHY* is again subdivided into (1.) *Geography* especially so call'd, which treats of the Surface of the *Land*, and all its Particulars. (2.) *Mineralogy*, which treats of *Fossils*, *Minerals*, *Earths*, &c. in the Bowels of the Earth. (3.) *Phytology*, which treats of the Nature of *Vegetables*; and (4.) *Zoology*, which treats of the various Kinds of *Animals*.

Hydrography. *HYDROGRAPHY* also considers (1.) The *Sea*, its *Figure*, *Tides*, *Saltness*, *Extent*, &c. (2.) The Doctrine of *Fountains*, *Rivers*, *Lakes*, &c. Of all which in Order.

SPECIAL

SPECIAL GEOGRAPHY has been diſcourſed of, as a particular Science; I ſhall therefore paſs to

MINERALOGY, which treats of Subjects dug up out of the Bowels of the Earth, which may be reduced to theſe ſeven Heads. (1.) *Earths.* (2.) *Ores.* (3.) *Foſſils.* (4.) *Minerals.* (5.) *Metals.* (6.) *Stones.* (7.) *Exuviæ*, and other extraneous Bodies. *Mineralogy.*

EARTHS include all thoſe ſofter *earthy Subſtances* we call *Clay*, *Loam*, *Marl*, *Sand*; and the *Boles* or *Earths*, as the *Terra Japonica*, *Lemnia*, *Armenia*, &c. all which reſult from the various and different Degree, Mixture, and Modification of the *Univerſal Properties* and *Specific Qualities* of the conſtituent Particles of the Matter whereof they conſiſt. *Earths.*

ORES are thoſe kinds of Earth which are dug out of *Mines*, containing great Quantities of *Metallic* Particles, and from which Metals are extracted; as *Gold Ore*, *Silver Ore*, &c. *Ores.*

FOSSILS are, properly ſpeaking, all Bodies *dug out of the Earth*, concerning which, ſee the *Foſſil Kingdom* under the Title *Chemiſtry*, and the *Philoſophical Grammar*. *Foſſils.*

MINERALS are all ſuch *Foſſil Bodies* as are not *inflamable*, *ductile*, or *fuſible*; but are *hard*, *brittle*, and may be reduced to Powder, or *calcined* by Fire. They are ſometimes call'd *Semi-Metals*, as being of a middle Nature between *Stones* and *Metals*; the Principal of theſe are *Marcaſite* or *Biſmuth*, *Antimony*, *Cinnabar*, *Chalk*, *Coal*, &c. to which ſome add *Mercury* or *Quick-ſilver*. *Minerals.*

METALS are ſimple Foſſil Bodies, that *fuſe* or become *fluid* by *Fire*; and by *Cold coagulate* and *harden* into a *ſolid Maſs*; and laſtly are *malleable* or *ductile* under the Hammer. The Bodies to which this Definition belongs in every Part, are but *ſix*, viz. (1.) *Gold*, which is the *heavieſt*, moſt *ductile*, *malleable*, *fixed* and *pure* of all Bodies; it is eaſier fuſed than *Iron* or *Copper*; is diſſolvable in no *Menſtruum* but *Aqua Regia*; and is found ſometimes in *Glebes* of Ore, and ſometimes in *pure Duſt* or *Grains* in the Bottom of ſome Rivers in *Guinea*, &c. (2.) *Silver* is next to *Gold* in *Purity*, *Fixity*, *Ductility* or *Malleability*; is more difficult of *Fuſion* than *Gold* or *Lead*; is diſſolvable *Metals.* *Gold.* *Silver.*

vable in *Aqua-fortis*, but not in *Aqua-regia*; it is ſeldom found *pure*, moſt often in a kind of ſtony black Glebe in the Mines of *Peru* and *Chili*. (3.) *Copper*; it is next to Silver in Weight, is very *ductile* when *pure*; its *Fixity* is greater than that of *Lead* or *Tin*; it is diſſoluble by all Salt Menſtruums yet known: If it be diſſolved in an acid one, it turns *Green*; if in an alcaline, *Red*; and in others, *Blue*. It is the moſt *elaſtic* and *ſonorous* of all Metals. The richeſt Copper Ore is in the Mines of *Hungary*. (4.) *Iron*; this Metal is compounded of a Vitriolic Salt, Sulphur, and Earth ill digeſted together. It is the leaſt *ductile*, the *hardeſt* and moſt *brittle* of all Metals. It *ignifies* long e'er it fuſes. It is diſſoluble by all *Menſtruums*. It is the only Metal ſubject to the Magnetic Power, and has a kind of Magnetic Virtue in itſelf. It is every where found in *Mines*, in a ſtony Glebe, like a *Load-ſtone*. (5.) *Tin*; this is the *lighteſt* of all Metals, and the *ſofteſt* except Lead. It has the leaſt *Fixity* in Fire; is eaſily *fuſible*, and that long before *Ignition*. It is eaſily *miſceable* with other Metals, and greatly increaſes their Sound and Elaſticity. It is chiefly dug in *Cornwal*, and its Glebe or Ore is a *heavy ſpongeous Stone*. (6.) *Lead*; this is next to *Gold* in Weight, but the ſofteſt and moſt flexible of all Metals; as alſo the moſt *fuſible*, leaſt *ſonorous* and *elaſtic* of all others. It is ſometimes found pure, but oftner in *Mineral Ore*, which is a ſort of blackiſh fat Earth difficult to fuſe.

Copper. *Iron.* *Tin.* *Lead.*

Mercury. *MERCURY* is by ſome reckon'd among the Metals; it is the *heavieſt* of all Bodies but *Gold*. It is the *moſt fluid* Body in Nature, and therefore diviſible into the minuteſt Particles. It is found capable of the greateſt Degree of *Cold* and *Heat*, but is yet uncapable of *Congelation* or *Freezing*. It enters the Pores of almoſt all Bodies, and diſſolves in moſt *Acids*. It is next to *Gold* in Purity, and is extremely *volatile*. It is found in Mines; and ſometimes *pure*, running in Veins and Streams about the Mine, and is then call'd *Virgin Mercury*.

Stones. *Vulgar.* *Precious.* *STONES* make the next Claſs; theſe are commonly diſtributed into *Vulgar* and *Precious Stones*; of the firſt ſort are *Marble*, *Flint*, *Free-Stone*, *Pumice-Stone*, *Talk*, *Chalk*, *common Stones*, *Pebbles*, &c. *Precious Stones*, which are call'd *Gems* or *Jewels*, are of divers

divers Diſtinctions, ſome being *tranſparent*, as the *Adamant* or *Diamond*, *Cryſtal*, and *Beryl*: Some are variouſly *colour'd*, and *brillant*; as the *Carbuncle*, *Jacinth*, *Chryſolite*, *Smaragdus*, *Topaz*, *Amethyſt*, *Achate*, *Jaſper*, *Ruby*, *Granate*, *Onyx*, *Sardonyx*, *Sapphire*, and a few others of leſs Note. Of all which ſee an Account in the *Philoſophical Grammar*.

EXUVIÆ, which make the laſt Head of *Mineralogy*, are all thoſe Shells and Parts of Animals, which are often found in the Bowels of the Earth: As the *Echini*, *Gloſſopetræ*, *Cockles*, *Oyſterſhells*, *Turbens*, *Scallops*, *Bones*, &c. petrified, or preſerv'd from *Corruption* thro' Ages paſt, and very probably moſt of them from the *Flood*, when the *Exuviæ* of *marine*, &c. Animals were by the general Inundation brought upon and mix'd with the ſuperior Part of the Earth, and which in Time harden'd into the Subſtance of *Stone*. *Exuviæ.*

PHYTOLOGY; this will be the the Subject of an entire Diſcourſe under the Title of BOTANY, next following, which therefore ſee. *Phytology.*

ZOOLOGY; is that Part of general *Geography*, which treats of the *Nature*, *Kinds*, *and Species* of *Animals*. *Zoology.*

AN *Animal* is an *organized* Body, endued with the Powers of *Senſation* and *Thought*, and of *voluntary local Motion*. This is the moſt exalted Kind of all *terreſtrial Beings*, and in which there are many Gradations, which are the Subjects of as many Branches or Subdiviſions of *Zoology*; and theſe are as follow: (1.) *Anthropography*, which treats of the Nature and Parts of the *Human Body*, and is the proper Subject of *Anatomy*, which ſee. (2.) *Zoography* in particular, which treats of the Nature of *Beaſts* or *Brutes*; as *Horſes*, *Kine*, *Sheep*, &c. (3.) *Ornithography*, which treats of the Nature of *Birds* or *Fowl*. (4.) *Ichthyography*, or the Doctrine of *Fiſhes*, which conſiders their Nature, Kinds, and Parts. (5.) *Entomatography* treats of *Inſects*, which are (*quaſi inſectæ*) as it were *cut aſunder*, and the two Parts join'd by a ſmall Thread or Neck; as in *Ants*, *Flies*, *Bees*, &c. (6.) *Herpetography*, or the Doctrine of *Reptiles*, or that Tribe of Creatures which move with a *ſinous*, *vermicular*, or *creeping Motion*, and neither *walk* nor *leap*; *An Animal defined.* *The Parts of Zoology.*

as do the other *Species* above-mention'd; ſuch as *Worms*, *Snails*, *Caterpillars*, &c. (7.) *Zoophytography* treats of ſuch Creatures as are a kind of *Medium* between *Vegetables* and *perfect Animals*, or partake of both in ſome meaſure; as all *Shell-Animals*: As *Oyſters*, *Cockles*, *Snails*, &c. which reſemble a *Plant* in being fix'd to ſome other Body, *viz.* their *Shell*; and an *Animal*, as having *Senſe*, *Thought*, and *Motion*. Concerning all theſe the Reader may ſee a ſhort Survey in the *Philoſophical Grammar*, or conſult the larger Works of *Naturaliſts*.

Of Hydrography. *HYDROGRAPHY* delivers the Doctrine of the *Sea*, and all Kinds of *Waters*. In the *Sea* we conſider, (1.) Its *Figure*, which, ſince the Earth is known to be of a *round* or *globular* Figure, muſt needs be *convex* or *ſpherical* likewiſe, according to the known Laws of *Fluids*; which alſo is demonſtrated by ſailing on its Surface. (2.) Its *Extent*, or Quantity of Surface: 'Tis impoſſible nicely to determine this; but 'tis well known to be above two Thirds of the Surface of the whole Earth. (3.) The *Depth* thereof; this is various in different Parts, being in ſome Places unfathomable, in others $\frac{1}{20}$, $\frac{1}{3}$, $1\frac{45}{100}$, $1\frac{1}{10}$, $2\frac{2}{10}$, $4\frac{1}{2}$ *Engliſh* Miles deep; whence it appears that the *Depths* of the Sea bear ſome Proportion to the *Height* of *Mountains* on the Earth. (4.) Its *Salt*; this is ſuppoſed to ariſe from vaſt *Rocks*, *Mountains*, and *Mines of Salt* diſperſed over the Bottom of the Sea; which being continually diluted, is as conſtantly mixing with its Waters; which therefore can never loſe their *ſalt Quality*. (5.) The *Tide*, or *Flux* and *Reflux*, call'd the *Flowing* and *Ebbing* of the Sea: This is known to ariſe from the *Attraction* of the *Moon* principally; ſometimes the *Attraction* of the *Sun* contributes thereto, as in *Conjunctions* and *Oppoſitions*, and then the Tides of courſe riſe *higher*, and are call'd the *Spring-Tides*. On the contrary, in the *Quadratures* the *Moon*'s Attraction is diminiſh'd by the *Sun*'s, and then the Tides flow *lower*, and are call'd the *Neap-Tides*.

The Sea. *Its Figure.* *Extent.* *Depth.* *Saltneſs.* *Tides.* *Spring and Neap Tides.*

How we have two Tides each Day. THE Waters perpendicularly under the *Moon* are in the upper Hemiſphere *moſt* attracted, in the lower one the *leaſt* attracted of all other Parts of the Sea's Surface; and therefore in both Caſes the Water will become

become lighteſt in theſe Places, and conſequently will there tumify and riſe higheſt, and ſo occaſion *two Tides* oppoſite to each other; which will ſucceſſively paſs any Meridian at the Diſtance of twelve Hours time.

THE Forces of the Moon's and Sun's Attraction are to each other as 51 to 10; the *Sum* and *Difference* of theſe Numbers are 61 and 41, and therefore the *Spring-Tides* cauſed by the *Sun* will be to the *Neap-Tides*, cauſed by the *Differences* of theſe Forces, as 61 to 41, or as 6 to 4; that is, the *former* are one third Part greater than the *latter*: Or, if the Sun can raiſe one Foot eleven Inches, the Moon will raiſe it nine Feet ſeven Inches; and both together in the *Spring-Tides* about eleven Feet and a half, but in *Neap-Tides* only about ſeven Feet and a half. And ſo much for a general Notion of the *Tide*, which admits of great *Variety* and *Exceptions*. *The Difference of Spring and Neap-Tides.*

SPRINGS or *FOUNTAINS* are the next thing to be conſidered. They are generally reckon'd of two Sorts, *viz.* (1.) *Temporary*, which run only for a time, or in *Winter*, and dry up in the *Summer*. Theſe ariſe from *great Rains*, which falling on the higher Parts of Land, enter the *Crevices* of the Earth, and run thro' various ſubterranean *Veins* and *Channels*, till they find Vent in the Surface of ſome lower Part, where they bubble up and iſſue forth in Streams. (2.) *Perennial*, which conſtantly run *all the Year round*. Theſe are ſuppoſed to derive their Waters from the *Ocean*, by Ducts and hollow winding Paſſages thro' the Bowels of the Earth to various Parts of its Superficies, where they burſt forth as do the others: Tho' many will have it that all Springs have their Waters, if not *wholly*, yet *principally* from *Rain*. But ſo great is the Controverſy about theſe Things, that I ſhall ſay no more of it here. *Of Springs.* *Temporary.* *Perennial.*

RIVERS are ſaid to owe their Original to many Cauſes; as (1.) Great Springs guſhing out of the Earth in large Streams and Torrents, which force their Way thro' the Country to the *Ocean*. (2.) The ſeveral leſſer Streams from divers Springs uniting, form a larger; and the *Confluence* of ſeveral of theſe larger Brooks or Streams make one great Current or *River*. (3.) Vaſt *Defluxions* of *Rain*, *melted Snow*, *Rivers and their Cauſes.*

condenſed Vapours, &c. from the Sides of high Mountains, tear up the Earth, and form *Channels* for the *largeſt Rivers* in the World, as the *Danube*, the *Po*, &c.

Lakes whence. *LAKES* are thoſe Collections of Waters, which are ſtagnant in the *Cavities* of the Earth's Surface. Of theſe ſome have their Rivers which diſcharge themſelves therein; ſome proceed from *Rain* and *Snows* which fill thoſe Hollows. Others are nouriſhed by various Springs riſing therein: And laſtly, others have a Communication with, and receive their Waters from the Sea; which is manifeſt in *Salt Lakes*, as that of *Haerlem*, &c. Thoſe *Lakes* ſend out large Rivers, which are ſupplied with ſubterranean Streams and Fountains: And thoſe which receive large Rivers, and ſend out none, muſt have what's more than ſufficient to fill them convey'd from them by Conduits under Ground.

Of BOTANY.

Botany or Phytology defined.

BOTANY (or *PHYTOLOGY*) is a Science which hath for its Subject *Herbs*, *Plants*, or *Vegetables* of all Kind: The Word *Botany* being derived of the *Greek* Word *Botane*, which ſignifies an *Herb* in that Tongue. Hence a Treatiſe on this Subject is call'd *Botanology*. The Book which gives an alphabetical Account of the Names, Nature, and Uſes of Plants, is call'd an *Herbal*; and a Perſon well skill'd in this Science is call'd a *Botaniſt*, *Herbaliſt*, or *Simpler*.

The great Parts of this Science.

A TREATISE of *Botany* ſhould contain four great Parts, *viz.* (1.) A general Theory of *Vegetation*, explaining from the Principles of Reaſon and Experiments the Nature and Manner of the *Life* and *Growth* of *Plants* and *Vegetables*. (2.) A juſt and orderly *Diſtribution* of *Herbs* and *Plants* into their ſeveral general Kinds, and a particular Enumeration of the *Species* and *Individuals* contained in each. (3.) A *Diviſion* of *Plants* into their natural component Parts, as *Roots*, *Stalks* or *Trunks*, *Branches*, *Leaves*, *Flowers*, *Fruit*, &c. with Obſervations on the Variety and Differences of each Part, in the various Kinds of Plants. (4.) A *Declaration* of the various Affections of *Plants* and *Vegetables*, as their *Place* of *Growth*, *Time* of *Blooming*, their ſeveral *Qualities* and *Uſes* in *Medicine*, and other Affairs of Life. This latter Part is the Subject of an *Herbal*, and ſo can't be expected here at large. I ſhall give the beſt Account of all theſe Particulars that I can come at, and ſhall begin with the Definition of a *Vegetable*.

A Vegetable, what.

A *VEGETABLE* is a Body organically form'd, adhering to ſome other Body by ſome Part of itſelf; by which Part it attracts and receives the Matter of *Nutrition* and *Increaſe*, which is call'd *Vegetable Life*. Such are all *Plants*, *Shrubs*, and *Trees*.

Vegetation defined.

VEGETATION is the way of *Growth*, or Increaſe of Bulk, Parts, and Dimenſions, by means of a proper Diſpoſition of *organical Parts* or Inſtruments receiving Nouriſhment or nutritious Juices, and which thereby circulates thro' all the Subſtance of the Vegetable, and is the immediate Cauſe or Principle of *Vegetative Life*.

Theory of Vegetation.

IN a perfect *Theory of Vegetation*, therefore, we muſt have regard to three Things: (1.) The *Original* or *Geneſis* of a vegetable Subſtance or Plant. (2.) The *Mechaniſm*, or organical Diſpoſition of Parts neceſſary to vegetative Life. (3.) Then what the vegetative Principle is, or what thoſe nutritious Juices are by which the Vegetable is made to grow and increaſe in Bulk.

Of the Original or Geneſis of a Plant.

BY the *Original* or *Geneſis* of a Vegetable, is not here underſtood the common Generation or Propagation thereof by Seed; but what that is in the Seed which primarily gives Form and Eſſence to the Plant, or how it comes to be or appear what it is. On this Head the Learned ſay much; and all, of late, agree that God, when he created the various Kinds of Vegetables, did even then alſo create and form every individual future Plant belonging to every Sort or Kind, and included them in proper Caſes or Seeds one within another: ſo that the *original Seed* did *really* and *formally* contain in it all the future Plants of its Kind in inconceivable Smallneſs or *Miniature*: And therefore when any Seed is planted, we are not to expect the Production or Creation of a Plant which was not before in being, but only that the *Embryo* Plant hath, by this means, a Power to *vegetate*, or to unfold and unravel its Parts, to burſt its *Matrix Seed*, to become viſible, and to increaſe its Bulk to its appointed Dimenſion.

How evinced and eſtabliſh'd

THIS Doctrine of the Generation of Plants ſeems to be intimated by *Moſes*, when he ſays, *And God ſaid, Let the Earth bring forth Graſs, the Herb yielding Seed,*

Seed, and the Fruit Tree yielding Fruit after its Kind, whoſe Seed is in itſelf upon the Earth. But it is abundantly confirmed by *Microſcopic* Obſervations and *Reaſoning* thereon; for not only all ſorts of *Grain* and *Fruit* appear in due Form and Proportion of Parts, by the *Microſcope*, even in the Bud, before the *Bloſſom* is ſeen, but even in the very Seed, while yet on the Plant, by help of the *Microſcope*, the Plant of the next Year may be ſeen. For Inſtance: Take a full-ripe *Bean*, and view the *Germen* with this Glaſs, and you will plainly perceive it to be nothing but the Stalk, Leaves, &c. of the next Year's Plant in Miniature. If therefore the Plant of this Year produces Seed, and in that Seed we deſcry the Plant of the next Year already form'd, 'tis reaſonable to ſuppoſe the Seed of that ſmall Plant alſo contains another to be diſcloſed the ſecond Year, and that another for the third Year, and ſo on *ad infinitum*, or to the End of Things.

The Sex of Plants, a new Diſcovery.

THE *Modern Philoſophers* have not only eſtabliſhed a new Theory of the Generation of Vegetables, but have moreover found that there is really ſuch a thing as *Sex* in Plants as well as in Animal Nature. And hence the Diſtinction of *Male* and *Female*, as well as *Hermaphrodite* Plants is become very familiar: For the *Vegetable Females* requiſite *Impregnation* by the *Male Vegetables*, in order to Generation, as much as Animals; nor will the Seed produced by Female Plants, if ſown, grow without it, any more than Eggs will produce Chickens, which were laid by an Hen not trod by the Cock: But ſince the Parts ſerving to Generation in Vegetables are indeed the *Flowers*, notwithſtanding they are ſo beautiful, ſo gay, and much admired; I ſhall have Occaſion to ſay more of this Matter, when I come to treat of that Part of a Plant.

The Structure of Plants.

THE next Thing to be conſider'd in Vegetation, is the *Mechaniſm* or Syſtem of *Organs* or *Veſſels* in a Plant, by which a Circulation of alimentary Juices is carried on through the Plant, and its Vegetation effected. In order to this there is found to be *two Series* or *Orders* of *Veſſels* in Vegetables. (1.) Such as receive and convey the alimental Juices from the *Root* to all the Parts of the Plant. Theſe anſwer to the *Arteries*, *Lacteals* and *Veins* in *Animals*. (2.) *Tracheæ* or *Air-*

Their Veſſels. *Air-Veſſels*, which are long hollow Pipes, wherein *Air* is continually received and expelled, *i. e.* inſpired and expired. Within theſe *Air-Pipes*, *Malpighi* (the Diſcoverer of this vegetable Mechaniſm) ſhews all the former Series of Veſſels are contained.

The Effect of Heat on Vegetables. HENCE it appears that the Heat of a Year, a Day, yea ſingle Hour or Minute, muſt have an Effect on the Air included in theſe *Tracheæ*, *i. e.* muſt rarify it, and conſequently dilate the *Tracheæ*; whence ariſes a perpetual Spring or Source of Action to promote the Circulation in Plants: For by the Expanſion of the *Tracheæ*, the Veſſels containing the Juices are preſſed, and by that means the Juices contained are propelled and accelerated, and alſo comminuted and render'd more and more ſubtile, and ſo enabled to enter Veſſels ſtill finer and finer; the thicker Part of it being at the ſame time ſecreted and depoſited into the lateral Cells or Veſicles of the *Bark*, to defend the Plant from Cold and other external Injuries.

Of the Sap. THE *Juice* (or what is vulgarly call'd the *Sap*) having thus gone its Stage from the Root to the remoteſt Branches, and having, in every Part of its Progreſs, depoſited ſomething both for Aliment and for Defence, what is redundant paſſes out into the Bark, the Veſſels whereof are inoſculated with thoſe wherein the Sap mounted; and thro' theſe it re-deſcends to the Root, and thence to the Earth again; and thus a Circulation is effected.

The Vegetative Principle, what. THE third and laſt Part of the *Theory* of *Vegetation*, is a true Knowledge of the *vegetative Principle*, or that which is the immediate Matter of the Growth or Increaſe of the Plant. 'Tis certain this is a Juice furniſhed by the Earth, and imbib'd by the abſorbent Veſſels in the Roots of the Plant; this is circulated through the Subſtance of the Plant, and, in part, is aſſimilated thereto: And thus by the conſtant Addition of new Matter in every Circulation, the Plant is made to grow or increaſe its Bulk: But more particularly,

THIS *Nutritious Juice* is imbibed from the Earth, and therefore muſt contain ſome Foſſil Parts, other Parts derived from Air and Rain, and others from putrified Plants and Animals, *&c.* and conſequently in *Vegetables* are contained all Kinds of *Salts*, *Oil*, *Water*,

ter, *Earth*, &c. if not mineral Particles too. This *Juice* enters the Root in form of a fine and ſubtile Water.

The State of the Sap in its different Stages of Circulation.

In the *Root* then it is earthy, watry, acid, poor, and ſcarce oleaginous at all. In the *Trunk* and *Branches* it is further prepared, tho' it ſtill continues acid. In the *Gems* or *Buds* it is more concocted, and, entering the Veſſels of the Leaves, cauſes them to unfold and ſhew themſelves. From hence it proceeds to the *Leaves* of the *Flower*, where it is ſtill further digeſted: Theſe tranſmitted to a greater Degree of Fineneſs to the *Stamina*; theſe again to the *Farina* or Duſt in the *Apices*, where, having undergone a further Maturation, it is ſhed into the *Piſtil* or *Style*, which receives it in the manner of a Womb, where it acquires its laſt Perfection, *fœcundates* the Seed, and gives Riſe to a new Plant.

The Office of the Sap.

THE *Sap* in Plants performs the ſame Office as the Blood in Animals, *viz.* to be a *Vehicle* to convey the *Food* or *Aliment* to the ſeveral Parts of the Vegetable by Circulation. This *Vegetable Aliment* is (according to Dr. *Woodward*) a certain *terreſtrial Matter* contain'd in all Water, and is of two Kinds, *viz.* The one properly a *vegetable Matter*, the other of a *mineral Nature*. The former of theſe is principally the Matter by which the Vegetable is nouriſhed. That this is more than probable, and that the Plant owes little or nothing of its Growth to Earth or Water, is made evident by divers Experiments.

Earth and Water conduce but little to the Vegetable Aliment, ſhewn by Experiments.

THUS Mr. *Boyle* raiſed a Plant of 3 *lb.* and after that another of 14 *lb.* was produced from a Quantity of Earth water'd with Rain or Spring Water, and which being carefully weighed dry at firſt and laſt, was found to have loſt ſcarce any thing of its Weight.

AGAIN: *Van Helmont* dried 200 *lb.* of Earth, and therein planted a Willow weighing 5 *lb.* which he watered with Rain or diſtill'd Water only; and after five Years he weighed the Tree, with the Leaves it had borne in the Time, and found the Weight thereof to be 169 *lb.* 3 *oz.* but that the Earth had loſt only 2 *oz.* of its Weight; ſo that the Increaſe of the Plant was 13113 ½ times more than the Expence of Earth, and conſequently *Earth* has but a ſmall Share in *Vegetation*.

THAT

THAT *Water* likewiſe conduces but little thereto, is evident from Dr. *Woodward*'s Experiments. He took a Plant of common *Spear-Mint* which weighed 27 Grains, and placed it in a Vial of Water for the Space of 77 Days; in which Time it drank up 2558 Grains of Spring Water, and then being taken out, weighed 42 Grains; ſo that its whole Increaſe was but 15 Grains, which was but 170th Part of the Water expended.

HE took another Plant, weighing 127 Grains, placed it in Water for 56 Days, when it weighed 255 Grains, and the Water expended was 14190 Grains, which was 110 times more than the Increaſe of the Plant. From theſe, and many other Experiments, 'tis plain that Water alſo has but a ſmall Share in Vegetation, and that therefore it muſt proceed from a *peculiar vegetable Matter* in *Water* and the Moiſture of the *Earth*, as before obſerved.

Of the Perſpiration of Plants.

SINCE then it appears that Plants imbibe ſuch great Quantities of Water or Humour, and retain ſo little for Nouriſhment and Growth, it follows, that there muſt neceſſarily be a conſiderable Perſpiration in *Vegetables* as well as in *Animals*, for the Diſcharge and Evacuation of all the ſuperfluous Moiſture in each Circulation. Accordingly, it has been found by Experience, that a Plant of about 3 *lb.* will perſpire 30 *oz.* in 12 Hours Day in *July*, but in a warm Night not above 3 *oz.* and nothing in a cold Night: And alſo that ſuch a Plant, if the Leaves were pluck'd off, would not perſpire above 1 *oz.* in 12 Hours Day, which plainly ſhews, that the *Leaves* are the great Organs of *Perſpiration*, and therefore may be call'd the *Lungs* of the Plant. Thus much for the *Vegetation of Plants*, the *Theory* whereof is not yet arrived to its due Perfection.

Of the ſecond great Part of Botany.

THE ſecond great Province of *Botany*, is to make a *juſt and natural Diſtribution* and *Arrangement* of *Vegetables* into the ſeveral *Genus's* or Kinds and Claſſes, and to enumerate the *Species* and *Individuals* contain'd in each. To effect this, many Perſons have purſued many and different Methods: For ſince the Kinds of *Plants* follow ſome *general Differences* or *Characteriſtics*, and theſe being to be found in almoſt all Parts of Plants; therefore ſome have began to define the various

The Diſtribution of Plants.

various Kinds of Plants from their *Roots*, others from the *Flowers*, and others from the *Fruit*, &c. But in this Affair none has ſucceeded ſo happily as the great Mr. *Ray*, whom I ſhall here abridge; but ſhall firſt premiſe a Word or two concerning the more common and general Diſtinction of *Plants* and *Vegetables*.

FIRST, then, with reſpect to *Place* or *Country*, Plants are diſtinguiſh'd into (1.) *Indigenous*, or ſuch as are *Natives* of our own Soil or Country; and (2.) *Exotics*, ſuch as are brought from *Foreign Countries*; as *Aloes*, *Euphorbium*, &c. With regard to *Sex* they are divided into *Male*, *Female*, and *Hermaphrodite Plants*, as before *obſerved*. With regard to the Time of their Continuance, or *Period of Life*, they are diſtinguiſh'd into *Annual*, or ſuch as live but one Year, or come up in the Spring and periſh in the Winter; and *Perennial*, or ſuch whoſe Roots endure many Years. Again, thoſe Plants which retain their Leaves in *Winter* are call'd *Evergreens*, and ſuch as do not are call'd *Deciduous*, or *Perdifols*. Alſo *Vegetables* have been divided into *Herbs*, *Shrubs*, and *Trees*; but this is rather popular and vulgar, than juſt and philoſophical. Laſtly, with reſpect to the *Element* they live in, Plants are divided into *Terreſtrial*, or *Land-Plants*; *Aquatic*, or *Water-Plants*; and *Amphibious*, or ſuch as live indifferently in *Land* or *Water*.

Indigenous Plants. *Exotics.* *Male*, &c. *Annual.* *Perennial.* *Evergreens.* *Perdifols.* *Terreſtrial.* *Aquatic.* *Amphibious.*

BUT Mr. *Ray* is much more minute and nice in his celebrated Diſtribution of Plants into 25 *Genders* or *Claſſes*, which are as follow.

Mr. Ray's *Diſtribution.*

I. *Submarine Plants*, or which grow in the *Sea*, on *Rocks*, &c. and ſeem to want both *Flower* and *Seed*: As *Corals*, *Sponges*, *Alga*, &c. *Submarine.*

II. THE *Fungi*, *Tubera Terræ*, or Muſhrooms, Puff-Balls, and thoſe Excreſcences of Trees call'd *Jew's-Ear*, *Agaric*, &c. all which appear to want both Flower, and Seed, and Leaves; and have a *Vegetation* peculiar to themſelves. *Fungous.*

III. *Moſſes* of all Sorts, moſt of which appear to want Flower and Seed; for which Reaſon theſe three *Genus's* are by Mr. *Ray* call'd *Imperfect Plants*. *Moſſes.*

IV. *Capillary Plants*, which are all ſuch as want a *Stalk*, or conſiſt of mere Leaves, and whoſe Seed grows like ſmall Duſt on the Back-part of the *Capillaries.*

Leaves: As *Maiden-hair*, *Spleenwort*, *Polypody*, *Fern*, &c.

Apetalous. V. *Plants* which bear *apetalous* or *ſtamineous Flowers*, i. e. ſuch as conſiſt only of *Stamina* and the *Perianthum*, without any Leaves: As *Hops*, *Hemp*, *Nettles*, *Docks*, *Sorrel*, *Arſeſmart*, *Lady's-Mantle*, &c.

Lactiferous. VI. *Plants* which have a *compound Flower*, and which emit a ſort of white *Juice* or *Milk*, when their Stalks or Branches are cut or broken off: As *Lettuce*, *Sow-Thiſtle*, *Dandelion*, *Succory*, *Goats'-Beard*, *Nipplewort*, &c.

Diſcoide. VII. *Plants* which have a *compound Flower* of a *Diſcoide Figure*, and the Seed *pappoſe*, or wing'd with *Down*, but emit no Milk: As *Colt's-Foot*, *Fleabane*, *Golden-Rod*, *Ragwort*, *Groundſel*, *Cudweed*, &c.

Corymbiferous VIII. THE *Corymbiferous Plants*, which have a *compound diſcous Flower*, but their Seeds have no *Down*. The Name is taken from the Form of its Flowers, ſpread out like an *Umbrello*; as *Corn-Marigold*, common *Ox-Eye*, *Yarrow*, *Daiſy*, *Camomile*, *Mugwort*; and others a-kin to them; as *Scabious*, *Teaſel*, *Eryngo's*, &c.

Capitated. IX. THE *Capitated Plants*, whoſe *compound Flower* is compoſed of many ſmall, long, fiſtulous Flowers, whoſe *Calices* being crowded thick together within a ſquammoſe or ſcaly Coat, emulate an *Head* or *turgid Knop* on the Top of the Stalk: As in the *Thiſtle*, *Burdock*, *Blue-Bottle*, *Knap-weed*, *Saw-worth*. Theſe alſo have a *Down* adhering to their Seeds.

Moneſpermous. X. *Plants* with a *perfect Flower*, and having only one ſingle Seed belonging to each ſingle Flower: As *Valerian*, *Corn-Sallet*, *Agrimony*, *Burnet*, *Meadow-Rue*, *Fumitory*, &c.

Umbelliferous. XI. THE *Umbelliferous Plants*, which produce their Flowers in an *Umbel* on the Top of the Stalk or Branch, reſembling in ſome Degree an *Umbrella*. They have a *Pentapetalous Flower*, i. e. one of five Leaves; and are *Gymnodiſpermous*, i. e. have *two naked Seeds* after each Flower. Of this Kind is *Parſnip*, *Cow-weed*, *Meu*, *Angelica*, *Dropwort*, *Hemlock*, *Saxifrage*, *Burnet*, *Smallage*, *Thorowax*, *Sanicle*, &c.

XII. THE

XII. THE *Stellate Plants*, ſo call'd becauſe their Leaves grow on their Stalks at certain Intervals in Form of a *Radiant Star*. The Flowers are *monopetalous*, but divided into four Segments, like little Leaves. Each Flower is ſucceeded by two ſmall Seeds at the Bottom of it. Of this Kind is *Mugwort*, *Madder*, *Lady's Bedſtraw*, *Woodruff*, *Clivers*, &c. *Stellated.*

XIII. THE *Aſperifoliate* or *Rough-Leaved Plants*; they have their Leaves growing alternately or irregularly on the Stalks; their Flower *Monopetalous*, the Edges of which, as well as of the *Calices*, are divided into five Parts, and after each Flower uſually ſucceed four Seeds: As *Hound's-Tongue*, *Wild Bugloſs*, *Comfrey*, *Mouſe-Ear*, &c. *Aſperifoliate.*

XIV. THE *Verticillate Plants*, whoſe Leaves grow by Pairs on the Stalks; their Flowers *monopetalous*, *labiated*, and in many *galeated*; to each Flower ſucceed four Seeds within the *Perianthum*. The common *Characteriſtic* of this Tribe is, that the Flowers grow in *Whirls* about the Stalk; though it agrees not to all the Plants of this *Genus*. To this *Claſs* belong *Dead-Nettle*, *Horehound*, *Mint*, *Pennyroyal*, *Vervain*, *Motherwort*, *Alehoof*, *Bugle*, *Betony*, *Self-heal*, &c. *Verticillated.*

XV. *Polyſpermous Plants*, or ſuch as have many naked Seeds ſucceeding the Flower: As *Marſh-Mallow*, *Pilewort*, *Crow's-Foot*, *Avens*, *Strawberries*, *Cinquefoil*, *Tormentil*, *Meadow-Sweet*, &c. *Polyſpermous.*

XVI. *Pomiferous Plants*, which are all ſuch as bear *large Fruit* cover'd with a *thick Rind*; whoſe Flowers are *monopetalous*, *quinquepartite* on the Margin, and growing on the Top of the Fruit. Of this Kind are all *Pompkins*, *Gourds*, *Citruls*, *Melons*, *Cucumbers*, &c. *Pomiferous.*

XVII. *Bacciferous Plants*, or ſuch as bear *Berries*, as *Briony*, *Honeyſuckles*, *Butcher's-broom*, *Solomon's-Seal*, *Lilly of the Valley*, *Nightſhade*, *Aſparagus*, &c. *Bacciferous.*

XVIII. *Multiſiliquous Plants*, or ſuch as have after each Flower many diſtinct, long, ſlender and ſometimes curv'd *Caſes* (or *Siliquæ*) in which the Seed is contain'd, and which open and let it drop out when ripe: As *Houſleek*, *Orpine*, *Navelwort*, *Bear's-foot*, *Marſh-marigold*, *Columbines*, &c. *Multiſiliquous.*

XIX. *Vaſculi-*

Valculiferous. XIX. *Vaſculiferous Plants*, with *monopetalous* Flowers, either uniform or difform; and after each Flower a peculiar Caſe, or *Seed-Veſſel*, (beſides the *Calix*;) and this often divided into many leſſer Cells or Locules, containing the Seed. Of this Sort are *Henbane*, *Gentian*, *Bindweed*, *Throatwort*, *Toad-Flax*, *Fox-Glove*, *Yellow* and *Red Rattle*, *Eyebright*, &c.

Siliquous. XX. *Plants* which have an uniform *Tetrapetalous Flower*, but bear their Seed in oblong *Siliquous* Caſes or Cods: As *Stockgilliflower*, *Wall-flower*, *Jack by the Hedge*, *Muſtard*, *Charlock*, *Radiſh*, *Wild-Rocket*, *Lady's-Smock*, *Scurvygraſs*, *Woad*, &c.

Leguminous. XXI. *Leguminous Plants*, or ſuch as bear *Pulſe*; their Flower *Papilionaceous*, (i. e. in the Form of a *Butterfly* and its Wings expanded) conſiſting of four Parts, ſet together at the Edges. Theſe are *Vetches*, *Lentils*, *Peas*, *Beans*, *Liquorice*, *Bird's-foot*, *Trefoil*, *Reſtharrow*, &c.

Enangioſpermous. XXII. *Enangioſpermous* or *Vaſculiferous* Plants, with a *pentepetalous* Flower, *i. e.* one of five Leaves, and a *Capſule* or *Caſe* containing the Seed: As *Maiden Pinks*, *Campions*, *St. John's Wort*, *Male Pimpernel*, *Chickweed*, *Crane-Bill*, *Primroſe*, *Flax*, *Periwinkle*, *Centory*, &c.

Graminifoliate. XXIII. *Graminifoliate Floriferous Plants*, with a *Tricapſular* Seed-Caſe, and a *Bulboſe* or *Tuberoſe* Root, from the Baſis whereof ſhoot many *Fibres* or Strings to keep it firm in the Earth: As *Garlic*, *Onions*, *Daffodil*, *Hyacinth*, *Saffron*, &c. To theſe are added alſo thoſe Plants whoſe Roots approach to a *bulbous* Form; as *Flower-de-Lis*, *Cookow-point*, *Orchis*, *Broom-Rape*, *Tway-blade*, *Winter-green*, &c.

Culmiferous. XXIV. *Culmiferous Plants*, which are ſuch as have a ſmooth, ſlender, long, hollow, jointed Stalk, with one graſſy ſharp-pointed Leaf, immediately encompaſſing the Stalk at each Joint. Theſe bear an imperfect Flower, and their Seed is contained within a *chaffy Huſk*: As *Wheat*, *Rye*, *Oats*, *Barley*, and moſt Kinds of *Graſſes*. Under this Head Mr. *Ray* alſo places thoſe with a *graſſy Leaf*, but not *culmiferous*: As *Cypreſs-Graſſes*, *Ruſhes*, *Cat's-Tail*, *Burr-Reed*, &c.

Anomalous. XXV. *Anomalous Plants*, or ſuch as have no diſtinguiſhing *generical Character*, or no certain Place of Growth,

Growth, but chiefly in Water: As *Water-Lilly*, *Water-Millfoil*, *Pepper-Graſs*, *Mouſe-Tail*, *Milkwort*, *Dodder*, &c.

EACH of theſe *Kinds* Mr. *Ray* divides into various *Species* more or leſs, and then enumerates the ſeveral Plants of each *Species*, with their proper Notes and Character whereby they are to be known. See his *Method of Plants*. This Gentleman has alſo made a Diſtribution of *Trees* and *Shrubs* into ſeveral *Kinds*: As (1.) *Coniferous*, which bear Fruit of a *Conical Form*; as *Fir*, the *Pine*, *Cedar*, *Cypreſs*, *Tree of Life*, &c. (2.) *Juliferous*, or ſuch as bear the long pendant Tufts call'd *Catkins*, or *Catalins*; as *Willows*, *Hazels*, *Wallnut-trees*, *Poplar*, *Mulberry-trees*, &c. (3.) *Pomiferous*, with *umbilicated* Fruit, *i. e.* ſuch as bear pretty large, round, juicy Fruit, with an *Eye* (as 'tis call'd) on the Top; as *Apple-trees*, *Pear-trees*, *Quince-trees*, *Medlars*, &c. (4.) *Bacciferous*, with *umbilicated* juicy Fruit like *Berries*; as the *Gooſberry-tree*, *Currant-tree*, *Myrtle*, *Elder*, *Ivy*, *Laurus-Tinus*, &c. (5.) *Pruniferous*, or which bear Flowers adhering to the Bottom of the Fruit; the Fruit itſelf of the *Plumb Kind*, or with a Stone in the Middle, containing the *Seed* or *Kernel*: As the *Plum-tree*, *Cherry-tree*, *Sloe-tree*, *Peach*, *Apricot*, *Nectarine Trees*, with all others of like ſort. To theſe he adds ſeveral other anomalous Genders, and ſuch as are in part reverſe to the foregoing; but 'tis not worth while to mention them here; nor yet his minute Diſtribution of *Graſſes*, *Reeds*, and *Ruſhes* into their proper *Claſſes* and *Genders*.

His Diſtribution of Trees.

Coniferous.

Juliferous.

Pomiferous.

Bacciferous.

Pruniferous.

THE third great Part of *Botany* makes a *juſt and natural Diviſion of a Plant into its* component Parts, *with a Deſcription of the ſeveral Affections, Differences, and natural Uſes of each Part with regard to the Vegetable Oeconomy*. Now the *Parts* of which a *perfect Plant* doth conſiſt, are the *Root*, *Stalk* or *Stem*, *Leaves*, *Flower*, *Fruit*, and *Seed*. Of theſe in their Order.

Of the third great Part of Botany.

THE *ROOT* of a Plant is that Body by which it adheres to the Earth or other Body, and by which it naturally draws in the nutritious Moiſture which nouriſhes it. *Roots* differ very much both in their Form and Make: The moſt noted *Differences of Roots* are

The Root of a Plant; of divers Sorts.

Fibrous. are the following. (1.) A *Fibrous* Root, or that which conſiſts wholly of ſmall *Threads* or *Fibres*, as moſt Sorts of *Graſs*, *Pinks*, &c. (2.) A *Tuberous* Root, or that which conſiſts of an uniform fleſhy Subſtance, and is of a *roundiſh* Figure; as *Turnips*, *Potatoes*, &c. (3.) A *Bulbous* Root; which is either *tunicated*, or cover'd with ſeveral *Coats* involving one another, as *Onions*, *Tulips*, &c. or *ſquamoſe*, having ſeveral Scales lying over one another; as *Lillies*, *Crown-Imperial*, &c. (4.) A *Teſticulated* Root, or ſuch as conſiſts of two Knobs, reſembling a Pair of *Teſticles*; as in the *Orchis*. (5.) An *Handed* Root, being a tuberoſe one, divided as it were into ſeveral *Fingers*; as in the handed *Satyrions*. (6.) A *Grumous* Root, or that which is compoſed of ſeveral *Knobs*; as the *Anemone*, &c. (7.) A *Granulous* Root, or kind of grumous one with ſeveral ſmall *Knobs* reſembling *Grains of Corn*; as in the *white Saxifrage*, &c. (8.) A *Tap-Root*, or a tuberoſe one extended in Length in Form of a *Tap* or *Faucet*; as thoſe of *Carrots*, *Parſnips*, &c.

Tuberous.

Bulbous.

Teſticulated.

Handed.

Grumous.

Granulous.

Tap-Root.

The Stalk of a Plant. THE *STALK* or *STEM* of Plants and Vegetables is the moſt *principal* or *ſubſtantial* Part, which ariſeth out of the Root, and ſuſtains the Leaves, &c. and is towards the upper Part generally divided into various *Limbs* or *Branches*. Scarce any thing admits more *Variety* than the *Size*, *Figure*, *Colour*, and *Texture* of this Part. I ſhall obſerve only the following Particulars. (1.) That ſeveral Stalks of Plants have *Joints* or *Knots*, the Uſes of which are ſaid to be the *ſtrengthening* the Stem, and finer Growth; for the *Juices*, being filtrated thro' theſe *Knots*, are tranſmitted more fine and good to the upper Parts, and to the Fruit. (2.) The Stalks of many Plants are *tubulous* or *hollow*; hence a great Quantity of Air filling this Hollow, conduces to the more expeditious ripening the Fruit or Seed; and alſo by drying up the *Sap*, and ſhrinking the *Veſſels*, determines the Life of the Plant to a ſhort Period: Hence moſt *annual Trunks* are obſerv'd to be hollow. (3.) The *Pith* is the middle Part of the Stalk, conſiſting of an immenſe Number of little *Veſicles*, which ſeem deſtin'd to *filtrate* and *elaborate* the *finer Juices* neceſſary for the *Leaves*, *Flowers*, and *Fruit*; according as the *Medullary* Subſtance of the *Brain* ſecretes the fine

Their Joints or Knots.

Their Cavity.

Their Pith.

Fluid

Fluid call'd the *Animal Spirits*. (4.) The *Wood*, or *lignous* Part of the *Stalk* and *Trunks* of Trees: This conſiſts of ſlender capillary Tubes, running parallel to each other from the Root up the Trunk; theſe receive a *fine Juice*, which diſtending their cellular Texture cauſes the Trunk to grow and increaſe yearly in Circumference; and thoſe *annular Increments* are viſible on a tranſverſe Section of the Trunk, and ſhew its Age. (5.) Through all the *woody* or *lignous* Part appears the Syſtem of *Air-Veſſels* or *Tracheæ*, eaſily diſcernable by the *Microſcope*; but of theſe already enough. (6.) The *Bark* or *Rind*, which makes the common Integument of the *Trunk* or *Stem* of Vegetables. This Part conſiſts of a fine Skin or *Cuticle*, under which lies the *Cortex* or true Skin, which we call the *Bark*: The Subſtance whereof is made up of ſmall Bladders, interwoven with fine ſoft and flexible Fibres, which makes a kind of *reticular Texture*, the *longitudinal Fibres* of which grow hard by degrees, become woody, and leaving the Nature of Bark, join the lignous Subſtance in form of *Ringlets*, making the *ſappy* Part thereof. But others are of a different Mind concerning the Nature and Uſe of the *Bark*, the *Theory* of which is not yet ſettled.

The Wood.

Veſſels.

Bark or Rind.

THE *LEAVES* of a Plant are the next Part to be conſider'd. They are properly the moſt extreme Part of a Branch, and the Ornament of the *Twigs*; they conſiſt of various *Fibres* minutely ramified, the *Interſtices* whereof are filled with a *parenchymous* Subſtance. The *Fibres* are analogous to *Arteries* and *Veins*, which bring and return the Sap after it is ſubtilized and refined in paſſing the *veſicular* Texture of the *Parenchyma*: Beſides this, the Buſineſs of *Tranſpiration* is carried on in the *Leaves*; for by their *excretory* Veſſels they exude or *ſweat forth* what is ſuperfluous in the Circulation of the nutritious Moiſture. That Leaves are the Organ of *vegetable Reſpiration* has been already obſerved; and that they not only *expire*, but alſo *inſpire* or draw in the Air thro' their numerous Pores, is pretty reaſonable to ſuppoſe; and that with the *Air*, they imbibe a Part of their *Nouriſhment* likewiſe. Laſtly, the *Leaves* of Trees ſerve for *Protection* to the *Gems* or *Buds*, and the *Flowers* and *Fruits*, which are hereby ſcreen'd in a good meaſure from the Injuries of Wind and Weather. Theſe are the principal of

Of the Leaves of Plants.

Their Structure.

Tranſpiration.

Reſpiration.

the many Uſes aſſign'd to the *Leaves* of Plants. The *Size*, *Form*, *Colour*, and *Superficies* of Leaves are ſo various, that it were endleſs to recount them all. I ſhall only obſerve, that a *Leaf* is ſaid to be *Simple*, which is not divided to the Middle; and *Compound*, when it is divided into ſeveral Parts, each reſembling a *ſimple* Leaf. Thus when a *Leaf* is divided into three *ſimple* ones, it is call'd *Trefoil*; if into five, *Cinquefoil*, &c. or they are ſaid to be *trifoliated*, *quinquefoliated*, &c. *Pennated* Leaves are ſuch as are divided into ſeveral Parts, like *Lobes*, placed along the middle Rib, either alternately, or by Pairs; as in *Goat's Rue*, *Agrimony*, &c. A *Ramoſe* Leaf is that which is divided into ſeveral minute *Branches*; as in *Oſmund Royal*, *Female Fern*, &c. An *intire* Leaf is that which has *no Diviſion* on its Edges; as in the *Apple Tree*, &c. A *ſinuated* Leaf is that which is cut about the Edges into ſeveral large Segments; as in the common *Mallow*. A *ſerrated* Leaf hath Edges divided like the Teeth of a *Saw*; as in the *Nettle*, &c. A *crenated* Leaf is that which is cut about the Edges into ſeveral *obtuſe Segments*; as in *Betony*, &c. A *laciniated* Leaf is that which is cut about the Edges into *Jags*, or deep Portions, in an irregular manner; as in the *Horned Poppy*, &c.

The Kinds of Leaves. *Simple* *Compound.* *Pennated,* *Ramoſe.* *Intire.* *Sinuated.* *Serrated.* *Crenated.* *Laciniated.*

THE *Leaves* are protruded from the Stalk or Stem by the great Quantities of *vernal Sap*, in the Form of a *Gem* or *Bud*; wherein they lie curiouſly folded in *Plaits*, and ſeparated from each other by a fine *Pellicle* or Membrane. The *Sap* ariſing now in great Abundance, enters and fills the Veſſels of the tender Leaf; this cauſes it to expand and extend itſelf quickly to its juſt or deſigned Limits of Growth. The *Afflux* and *Reflux* of the nutritious Juices by the *Foot Stalk* of the Leaf continuing a while, at length abates and declines, the Juices then in the Leaf begin to ſtagnate and grow putrid, whence a Conſumption enſues, and the Leaf dies; which is the Cauſe of the *Falling* of the *Leaves* in *Autumn*.

The Vegetation of Leaves.

THE *FLOWER* is that Parts of a Plant whoſe curious *Form*, charming *Fragrance*, and beauteous *Colours* ſo delight our Senſes. This is certainly the moſt choice and delicate Part of Vegetables. A *perfect Flower* is ſaid to have the following Parts: (1.) The *Empalement*, *Calix*, or *Flower Cup*; this is that exterior

Of the Flower of Plants. *Parts of a perfect one.* *Empalement.*

terior Part which encloſeth the lower Part of the Flower, and is therefore alſo call'd the *Perianthum*; its Uſe is to ſtrengthen and preſerve the *Flower*. (2.) The *Petala* or tender *fine-colour'd Leaves*, which are generally the moſt conſpicuous Part of the *Flower*; this is alſo call'd the *Foliature*. (3.) The *Stamina* or *Chives*, which are thoſe fine upright Stems which ſtand immediately within the *Foliature*, and in many Plants they ariſe from the *Petala* or Flower-Leaves. (4.) The *Apices* or *Summits*, which grow on the Top of the *Chives* in the Form of Seeds, and contain a fine Powder or Duſt call'd the *Farina*, or Meal of the Flower. (5.) The *Stylus* or *Piſtil*, which ſtands in the Middle, within the *Chives*, whoſe Top is ſometimes above, but generally below the *Apices*, and grows on (6.) The *Matrix* or *Ovary*, or Seed-Caſe, in which the Seed (in moſt Plants) is contain'd and nouriſh'd in its *Embryo State*; and this Part is generally the *Rudiment* of the Fruit. The Flowers which want any of theſe Parts are reckon'd *imperfect* ones.

Petala.

Stamina.

Apices.

Stylus.

Ovarium.

THERE is, as I have before obſerved, in Plants as well as Animals, a *Difference of Sex*, and the Flowers are the *Pudenda* or *Organs of Generation* in each Plant. The *Male Parts* of the Flower are the *Stamina*, which bear the *Apices*; and theſe, as *Teſticles*, contain the *prolific Powder* or *Sperm* of the Plant. The *Female Parts* are the *Style*, which ſerves as a *Vagina* to receive and convey the ſpermatic *Farina* of the *Apices* to the *Seed Caſe*, which is the *Matrix* or Womb; by which Means the *Embryo Seeds* are impregnated with the prolific Power of producing a future Plant.

Of the Sex and Genital Parts of Plants.

FLOWERS are therefore ſome *Male*, ſome *Female*, and others *Hermaphrodite*. The *Male Flowers* have the *Stamina* and *Apices*, but bear no *Fruit*, and are therefore call'd *Stamineous Flowers*. The *Female Flower* bears the *Style* or *Piſtil*, which is ſucceeded by the Fruit. Theſe *Male* and *Female* Flowers grow at ſome Diſtance from each other on many Plants, as *Cucumber*, *Melon*, *Gourd*, *Turky Wheat*, *Turnſol*, *Wall-nut*, *Oak*, *Beech*, &c. *Hermaphrodite* Flowers contain both *Male* and *Female Parts*, and are by far the greateſt Tribe, as *Tulips*, *Lillies*, *Daffodil*, *Althæa*, *Roſemary*, *Sage*, *Thyme*, &c.

Of Male, Female, and Hermaphrodite Flowers.

THERE is a large Diſtribution of Flowers into *Monopetalous*, *Dipetalous*, *Tripetalous*, *Tetrapetalous*, &c.

according as they consist of *one*, *two*, *three*, *four*, &c. *Petala* or Leaves; but this is not worth any further Regard here.

Of the Fruit of Plants.

THE *FRUIT* is that Part of a Plant which succeeds the *Flower*, and is designed to contain, preserve, nourish, and defend the Seed. Hence, in the Texture of this Part, the more coarse and less concocted Parts of the nutritious Juices are filtred, and sent more pure, elaborate, and spirituous to the *Seed* for the Support and Growth of the tender delicate *Embryo*, or *Plantule* therein contained.

The Parts thereof.

THE Composition of the *Fruit* appears to be in general the same as that of the other Parts of the Tree.

Skin.

Thus (1.) the *Cuticle* and *Skin* of the Fruit is only a Production of the *Skin* or outer *Bark* of the Tree.

Parenchyma.

(2.) The *Parenchyma*, or *Pulp* of Fruit, is only an Expansion of the *Blea* or inner Rind of the Tree, swoln and turgid with Juices.

Branchery.

(3.) The *Branchery* or *Ramification* are only a Continuation of the woody Fibres of the Branch on which it grows.

Core.

(4.) The *Heart* or *Core* of Fruit is said to be produced from the Pith or *Medulla* of the Branch, indurated and strengthen'd by the Twigs of the Wood and Fibres inosculated therewith.

BUT a prodigious Variety obtains in this Part of Nature's Workmanship, each *Species* producing its Fruit and Seed in a different Way and Kind.

Parts of an Apple, Pear,

Thus the *Apple* hath four Parts, *viz.* the *Skin*, *Parenchyma*, *Branchery*, and *Core*. The *Pear* hath five distinct Parts, the *Skin*, *Parenchyma*, *Branchery*, *Calculary* (or stony Part) and the *Acetary*.

Cherry, Nut, &c.

The three first of these, and a *Stone*, make the Substance of *Cherries*, *Plums*, &c. The *Nut*, *Acorn*, &c. consist of three Parts, the *Cap*, the *Shell*, and the *Pith* or *Medulla*, incloſing the *Kernel* or Seed. Concerning all which Authors say a great deal with little Certainty.

The Falling off of the Flower.

THE Fibres of the Branches being first extended thro' the *Parenchymous* Part of the Fruit to the Flower, furnish the necessary Matter for the Vegetation of it; but as the Fruit increases, it intercepts the Aliments; and thus the Flower is starved and falls off; while the Fruit proceeds to grow and hasten to a State of *Maturity*.

Of the Seed of Plants.

THE *SEED* is that important Part which is the Medium of all Vegetable Propagation and Production;

it

it is moſt intimately contain'd in this Year's Plant, and the next Year's Plant is moſt intimately contain'd in it. This is both the Beginning and End of the Vegetable State.

Its Parts.

THE Parts of which the Seed of a Plant doth conſiſt, are (1.) The *Embryo* or *Plantule*, being the future Plant in *Miniature*, and is call'd the *Gem* or *Bud*; this adheres to (2.) The *Placenta* or *Cotyledon*, which ſerves the ſame Purpoſes as the *Secundines*, i. e. the *Chorion* and *Amnion* in Animals. (3.) The common Tunicle incloſing the whole Seed.

Embryo Plant.

Placenta, or Cotyledon.

Common Coat.

THE Seed receives its Fecundity, as I before hinted, from the *Genital Parts* in the Flower, and being now committed to the Earth, proceeds to vegetate as follows.

The Vegetation of the Gem or Plantule.

THE *Plantule* or *Gem* of the Seed being acted upon and moved by the genial Influence and Warmth of the two great Parents the *Sun* and *Earth*, begins to expand and protrude, or ſhoot forth its *Radule* or tender Root downward in the Earth, and the *Plumule* or *Infant Plant* upwards; the ſmall *Radicles* abſorb the nutritious Juices, which cauſes the *Plumule* to grow and increaſe to the deſtined Size of the Plant: But till the Root is ſhot, and able to procure Nouriſhment, the *Plantule* is nouriſhed from the Subſtance of the *Placentæ* or *Cotyledons*, which it draws to itſelf by an infinite Number of little Filaments call'd *Fuges Umbilicales*, or *Navel-Strings*, and by *Botaniſts* the *Seed Root*. By this means the *Embryo Plant* receives the cruder Juices of the Earth prepared and purified, being ſtrain'd thro' the very Subſtance of the *Placenta*. When the Root is able to provide for a Plant, the *Cotyledons*, or two Lobes of the *Placenta*, periſh, and the Plant may be ſaid to be deliver'd of its Young or *Fœtal Plant*: So analogous is the Proceſs of Nature in the *Vegetable* and *Animal Oeconomy!*

The fourth great Part of Botany.

THE *fourth* and laſt Part of *Botany* is concerned in the following Particulars: (1.) To give an exact Enumeration, and the Names of all the Plants yet known in every Part of the World, which are at this Time about 16000 in Number. (2.) To ſpecify the peculiar *Notes*, *Marks*, *Properties* and *Characters* of each Plant, by which it may be known and diſtinguiſhed from any other. (3.) The *Place* of its moſt common Growth, as on *Land* or *Water*, *wet* or *dry*

Ground, on *Walls*, *Trees*, &c. (4.) The *Time of Blooming*, and their Continuance in *Bloom*. (5.) To recite their *Qualities*, and give a juſt and true Account of the *Medicinal Virtues* that are known to pertain to each. (6.) To teach the *Method of propagating* each Species in *Gardens*, &c. for the various Uſes of *Ornament*, *Food*, *Medicine*, or *Natural Philoſophy*. But, as I at firſt obſerv'd, theſe Particulars are of too general a Nature, and alone the Subject of the largeſt Volumes, and conſequently can't be expected here.

Of

Of ANATOMY: *Containing a brief Deſcription of all the Parts of a* HUMAN BODY.

ANATOMY *defined.*

ANATOMY is the Art which teaches the true Knowledge of the *Human Body* (principally, but of any *Animal Body* in general) as to the *Structure* and *Component* Parts thereof, by an artful and orderly *Diſſection*, or *Severing the Parts and Members of it from one another*, by a proper Inſtrument. This Art is divided into *two great Parts*, viz. (1.) *Oſteology*, or the Doctrine of the *Bones* in general; and (2.) *Sarcology*, which treats of all the *fleſhy Parts* of the Body. *Is divided into Oſteology and Sarcology.*

Oſteology divided into Oſteogony,

OSTEOLOGY, (according to the learned *Boerhaave*) is divided into three Parts, *viz.* (1.) *Oſteogony*; which treats of the *Origin* of the Bones, of *what Matter* they conſiſt, and the Condition of the Bones in their proper Subſtance when actually form'd. (2.) *Oſteography*, which teaches the Knowledge of the *Structure* of the *Skeleton* or *Fabric* of the Bones, and the Diverſity of Parts in the Bone itſelf now perfect. (3.) *Synoſteology*, or *Synoſteography*; which explains all the Parts of a Bone, by means of which a Bone is *connected* or *joined* to a Bone, *with Motion*, or *without Motion*; with a *Cartilage*, or *without it.*

Oſteography;

Synoſteology.

Sarcology is divided into Myology,

Splanchnology,

SARCOLOGY alſo has a threefold Diviſion, *viz.* (1.) *Myology*, which teaches the Doctrine of the Muſcles. (2.) *Splanchnology*, which treats of the *Bowels* (or *Viſcera*) and the great *Organs* of Animal Life; as the *Brain*, *Lungs*, *Stomach*, *Inteſtines*, &c. ſhewing their *Nature*, *Connection*, *Parts*, *Figure*, *Site*, &c. (3.) *Angiology* or *Angiography*; this exhibits a Deſcription of all the various *Veſſels* in the Body; as the *Arteries*, *Veins*, *Nerves*, &c. explaining their *Natures*

Angiology.

and *Uses*. Of all which take a concise Account in their Order.

Osteogeny explain'd.

OSTEOGONY being a Description of all the *Mutations* or *Changes* a Bone undergoes from its first Conception in the Womb to its last State of Perfection in the *Adult Skeleton*, it naturally falls under the following Considerations, *viz.* (1.) The Definition of a *Bone*; which is said to be, *The hardest, whitest, and lightest Part of the Body, inflexible and insensible, consisting of a complex Substance of a vascular, fibrous, membranous and cartilaginous Nature.*

A Bone defined.

The Genesis of the Bones.

(2.) The *Genesis* of a *Bone*; this consisteth of various *States* and *Gradations* from its first Origin to its last Perfection. For (1.) The first State of a Bone is that of a *terrestrial, nutritious, fluid* Matter, flowing among the Fluids (in *Ovo*) design'd for the Formation of the other Parts of the Body. (2.) The Parts of this original earthy Fluid at a proper Time begin to cohere, unite, and thus form themselves into very *small or fine Capillaments, Threads* or *Fibres*, soft and porous, which being fill'd with a *Lympha* of the same Nature, they begin to increase, harden, and grow close to one another. (3.) The *Fibres* thus form'd strike into various Directions, and being thus interwoven in the Manner of a *Web*, they constitute a sort of harder, white, broad, elastic Substance, call'd a *Membrane*. (4.) These *Membranes*, as their *Fibres* become gradually hard and dry, do themselves begin to consolidate, and form hard, thin, white Substances, which lie on one another in the manner of thin Plates, or *Lamellæ*, between which run a great Number of *Vessels* carrying Fluids proper for Moisture and Nourishment; which all together constitute or make up the *white, hard, friable and elastic Substance* call'd a *Cartilage*. (5.) Since the largest Artery hath the greatest Pulsation, and this being in the Middle of the Bone, it will there first become a *Cartilage*, which by Degrees becomes harder and more compact, till at last it is perfectly *ossified*, or arrived to the proper Consistence of a *Bone*; and the Blood-Vessels being now compress'd on all Sides, bring no more Blood than what is sufficient to supply the Place of the decaying Particles; they having now obtain'd their utmost *Extent, Hardness*, and *Solidity*. And hence, since Bones begin to *ossify* in the middle Parts first, 'tis easy

Their first State of Fluidity.

Their second, or Fibrous State.

Their third, or Membranous State.

Their fourth, or Cartilaginous State.

Their fifth and last State of a perfect Bone.

Why Bones are hardest and smallest in the Middle.

to

to understand they will of Consequence be there both *hardest* and *smallest*; while on the contrary they will be more extended towards the Extremities, and of a more soft and cartilaginous Nature. Thus much for *Osteogeny*.

OSTEOGRAPHY in the next Place teaches the *Fabric of the Bones*, or the *Structure* and *Compages* of a *Sceleton*. *Osteography.*

A *SCELETON* then is a *System of Bones* clear'd of the Flesh, and join'd together in the same Manner as they existed in the Body. In order to understand this aright, it will be necessary to mention the several *Affections* of a Bone, and the Manner of their *Articulations*. *A Sceleton, what.*

THE *Affections* of a Bone, which I shall here observe, are of two Sorts, *viz.* *Cavities* and *Prominencies*. The *Cavities* of Bones are deep or shallow. A deep Cavity is call'd *Cotyle*; but the superficial one is call'd *Glene*. The *Prominencies* of a Bone are of two Kinds, *viz.* (1.) An *Apophysis*, which is a Protuberance made by the Fibres of a Bone. (2.) An *Epiphysis*, which is only a small Bone set upon the Extremity of a bigger Bone, which in time unite in one. Both the one and the other are usually upon the Extremities of the Bones; and serve either for the Insertion of *Muscles*, or the Articulation of the Bones. If the *Protuberance* be large and round, it is call'd *Capula*, or the Head; if small and round, it is call'd *Condylus*; if sharp, *Corone*, *Styloides*, &c. *Affections of the Bones.* *Cotyle.* *Glene.* *Apophysis.* *Epiphysis.* *Condylus.* *Corone.*

THE *ARTICULATION* of the Bones are of the following Kinds. (1.) *Diarthrosis*, where there is a manifest Motion. (2.) *Synchondrosis*, which is by means of a Cartilage, and with a small and obscure Motion. (3.) *Synarthrosis*, without any Motion at all. *The Articulation of Bones.*

DIARTHROSIS is again of three Sorts: (1.) *Enarthrosis*, which is when a large round Head of a Bone is receiv'd into a large Cavity; as of the Thigh-Bone in the *Ischium*. (2.) *Arthrodia*, which is when a flat plane Head of a Bone is receiv'd into a shallow Cavity; as the Articulation of the *Humerus* with the *Scapula*. (3.) *Ginglymus*, which is when the Bones articulated mutually receive and are receiv'd by each other: As in that of the *Humerus* and *Cubit*. *Diarthrosis.* *Enarthrodia.* *Arthrodia.* *Ginglymus.*

SYN-

Synchondroſis. *SYNCHONDROSIS* is when the Extremities of two Bones are join'd together by means of an intervening *Cartilage*, as in the *Vertebræ*, and the *Ribs* and *Sternum*; where though the Motion of all is manifeſt, yet that of any two is ſcarce perceptible.

Synarthroſis Harmonia. *SYNARTHROSIS* is alſo of three Sorts. (1.) *Harmonia*, which is by a ſimple Contact of the Extremities of Bones, without any mutual Ingreſs,

Sutura. and is deſign'd by a right or oblique Line. (2.) *Sutura*, which is when two Bones are mutually indented into each other, and look like the *Teeth of a Saw*; as in

Gomphoſis. the Articulations of the Bones of the Scull. (3.) *Gomphoſis* is when a Bone is faſten'd or ſocketed into another; as the *Teeth* in the *Jaw-Bones*.

IN the *SCELETON* we ſhall take a View of the Bones in the following Order, *viz.* Of the *Scull*, the *Spine*, the *Thorax*, the *Pelvis*, the *Arms* and the *Legs*.

Of the Bones of the Scull. THE Bones of the *Scull* or *Cranium* are ſix, *viz.*

Os Frontis. (1.) The *Os Frontis* or *Forehead-Bone*; it forms the upper Part of the Orbits of the Eyes, and the Forehead; and joins the Bones of the *Sinciput* and *Temples*,

Parietalia. by what is call'd the *Coronal Suture*. (2.) and (3.) The two Bones of the *Sinciput*, call'd *Parietalia*, which make the Sides of the *Scull*, and are join'd to one another in the Crown of the Head, by the *Sutura*

Oſſa Temporum *Sagittalis*. (4.) and (5.) The *Oſſa Temporum*, or two Bones of the Temples; they are ſituated in the lower Part of the Sides of the Scull, and are join'd to the *Parietalia* by the *Satura Squamoſa*. (6.) The *Os*

Os Occiptis. *Occipitis*, or Bone of the *Occiput* or Hinder-part of the Head; it joins the *Oſſa Parietalia*, by the *Sutura Lambdoidalis*.

The Proceſſes of the Temporal Bones. THE lower Part of each *temporal Bone*, being thick and hard, is call'd *Os Petroſum* or *Stony Bone*; they have alſo each three *Proceſſes*, viz. (1.) The *Zygomatic*, which runs forward and unites with the Proceſs of the upper *Jaw-Bone*, making the Bridge call'd *Zygoma*, under the Ear. (2.) The *Mamillary* or *Maſtoide* Proceſs, ſituated behind the Paſſage of the Ear. (3.) The *Styliform Proceſs*, which ſtrikes down from the *Baſis* of the *Scull* like the End of a *Quill*.

Bone of the Scull and upper Jaw. THERE are two Bones common to the Scull and Upper Jaw, *viz.* (1.) The *Sphænoides*; it is ſituate

Os Sphænoides.

juſt in the Middle of the Baſis of the Scull; on its lower Side it has five *Apophyſes*; two call'd the *Pterigoides*, or Wing-like Proceſſes; two others make the lower and internal Part of the Orbit of the Eyes; and the fifth a very ſmall one, receiv'd in a Cavity at the further End of the *Vomer*. On its inſide it has four Proceſſes call'd *Clinoides*, which form a Cavity in the Middle call'd *Sella Turcica*. (2.) The *Os Ethmoides*; it is ſituated in the Midde of the Baſis of the *Forehead-Bone*; in the Middle of it is a ſmall thin Proceſs call'd *Criſta Galli*, from its Likeneſs to the *Comb of a Cock*. This Bone has its Name from the Number of ſmall Holes in it, which make it reſemble a *Sieve*. From its under Side there goes a thin Bone, which divides the Cavity of the Noſe into two Parts call'd *Noſtrils*: The lower Edge of this Bone is grov'd with the *Vomer*. On each Side this Partition are the *Oſſa Spongioſa*, or Spongy Bones; the two external Plates whereof make part of the Orbit at the greater *Canthus* or Corner of the Eye.

Os Ethmoides, or Cribriforme.

Oſſa Spongioſa.

THE Bones proper to the *Upper-Jaw* are eleven; five on each Side, and one in the Middle: They are as follow. (1.) *Os Mali*, *Zygoma*, or Cheek-Bone; it makes the higheſt Part of the Cheek, and the external Part of the Orbit of the Eye. (2.) The *Os Maxillare* is that Part in which all the Teeth of the Upper-Jaw are ſet; its upper Side makes the lower and internal Part of the Orbit. (3.) The *Os Unguis*; it is a little Bone in the great Angle of the Orbit; in it is the Hole in which the *Lachrymal Bag* lies. (4.) The *Os Naſi*, or Bone of the Noſe; to this the *Cartilages* which divide the *Noſtrils* are faſten'd. (5.) The *Os Palati*, or Palate Bone; it makes the Hinder-part of the Roof of the Mouth, and joins the *Os Maxillare*, which makes the Fore-part. (6.) The eleventh and laſt is call'd the *Vomer*, being like a *Plough-ſhare* as it were; it has a Grove on its upper Part, which receives the *Septum Naſi*, or Partition of the Noſe; it is join'd above on the further End to the *Os Sphænoides*, and on its lower Part to the Bones of the Palate.

Bones of the Upper-Jaw.

Os Mali.

Os Maxillare.

Os Unguis.

Os Naſi.

Os Palati.

Vomer.

THE *Lower Jaw* is made of one Bone; its anterior angular Part makes the *Chin*. At each Extremity it has two Proceſſes; the firſt, which is broad, thin, and pointed, is call'd *Corone*; the other, which

Bone of the Lower Jaw.

is

is lower and flattish, with a sort of Head, is call'd *Condylus*; by means whereof the *Lower Jaw-Bone* is articulated into the *Sinus* of the *Os Petrosum*. Each End of the Basis of this Bone is call'd the *Angle* of the Lower Jaw.

Of the Teeth. THE *Teeth* are next to be consider'd; they are the hardest, smoothest, and whitest Bones of the Body. They are formed in the Cavities of the Jaws, and are of the following Sorts. (1.) The *Incisivi*, or *Cutters*, so call'd because pretty broad and sharp; they stand foremost in each Jaw, and in each Jaw four. (2.) The *Canini*, or *Dog-Teeth*; these are two in each Jaw, one on each Side of the *Incisivi*; they are thick, round and pointed, and are contain'd above two Thirds in their *Alveoli* or Sockets. (3.) The *Molares*, or *Grinders*; they are generally ten in each Jaw, five on a Side. Their Extremities are broad and uneven, and are inserted in their Sockets with *two*, *three*, and sometimes *four* Roots. With these we *grind*, as it were, our *Aliments*, to a State fit for Digestion in the Stomach.

Incisivi.

Canini.

Molares.

Of the Spine, and Vertebræ. THE *SPINE* or *Back-Bone* is made up of a Chain of small Bones, which reaches from the Basis of the Scull to the Seat of the Body. These small Bones are call'd *Vertebræ*; of which there are reckon'd seven in the Neck, twelve in the Back, five in the Loins, six in the *Os Sacrum*, and four in the *Os Coccygis*. In each *Vertebra* we distinguish two Parts, *viz.* the *Body*, and the *Processes* thereof. The Body of the *Vertebra* is round and convex on its Fore-part, and somewhat concave on its Hind-part. Its upper and lower Sides are plane, each cover'd with a *Cartilage*, for the sake of the *Motion* and *Flexure* of the Body. Each *Vertebra* has three Sorts of *Processes*, *viz.* (1.) *Transverse* or *lateral*, one on each Side; they are nearer the Body of the *Vertebra* than the rest. (2.) Four *Oblique Processes*, two on the upper Part, and two on the lower; by these the *Vertebræ* are articulated to one another. (3.) One *Acute* one, on the hindmost Part of the *Vertebra*. These *Processes*, with the hinder and concave Part of the Body of the *Vertebræ*, make a large Hole in each *Vertebra*, which Holes all together make a *Chanel* for the Descent of the *Spinal Marrow*.

Their Processes

THE

THE *Vertebræ* of the *Os Sacrum* coaleſce in Adults, and make but one large triangular Bone, whoſe Baſis is tied to the laſt *Vertebra* of the Loins, and its Point to the *Os Coccygis*, which, with its little *Vertebræ* ſmaller than the other, ends the Spine in a *cartilaginous Point*, like a ſmall Tail curv'd inwards. *Os Sacrum.*

IN the *THORAX* of the *Sceleton* we obſerve the following Bones. (1.) The *Ribs*, which are twenty-four in Number, twelve on each Side, articulated to the twelve *Vertebræ* of the Back. They are of two ſorts, *viz.* ſeven *True Ribs*, which have their *cartilaginous* Extremities inſerted into the *Sinus* of the *Sternum*; and five *False Ribs*, which are ſhorter and ſofter, and their Extremities tied to one another; except the laſt, which is tied to the *Midriff*, or elſe to the deſcending *oblique Muſcle*. (2.) The *Sternum*, or Breaſt-Bone; this, from ſeven or eight Bones in Infants, hardens and unites into three at ſeven Years of Age: It is ſituated in the Middle of the *Breaſt*: It receives the Cartilages of the Ribs, and ends itſelf in a cartilaginous Point, call'd *Cartilago Xiphoides* or *Enſiformis*. (3.) The *Claviculæ*, or Chanel-Bones; they are two, one on each Side, on the upper Part of the Breaſt, they are pretty long and ſmall; at one End they are articulated to the *Sternum*; at the other, to the *Production* of the *Scapula* call'd *Acromion*. Their Uſe is to ſuſtain and keep the *Scapulæ* at a proper Diſtance from the *Sternum*. (4.) The *Scapulæ*, or Shoulder-Blades; they are two large and broad Bones in form of a ſcalenous Triangle; they are ſituated on each Side of the upper and back Part of the *Thorax*. The broad End is call'd the *Baſis*; and each hath three *Proceſſes*; one running along the Middle, call'd the *Spine*, the End of which is call'd *Acromion*, and receives the Clavicles: The ſecond is a little below, call'd *Coracoides*, from its Likeneſs to a *Crow's Bill*; The third *Proceſs* is call'd *Cervix*, and receives the Head of the *Humerus*, or Arm-Bone, in its *Sinus*. *Bones of the Thorax.* *Ribs.* *Sternum.* *Claviculæ.* *Scapulæ.*

THE *PELVIS* or Baſon of the *Sceleton*, is form'd by the following Bones, *viz.* (1.) The *Os Sacrum*, and (2.) The *Os Coccygis* on the hinder Part, both already deſcribed. (3.) The *Oſſa Innominata*, or nameleſs Bones; which in *Infants* conſiſt of three ſeparate Bones, but in *Adults* they unite and make but one Bone, in each of which they diſtinguiſh three Parts, *viz.* *Bones of the Pelvis.*

Os Ilium. viz. (1.) The *Ilium*, or Hip-Bone; which is the broad superior Part join'd to the *Vertebræ* of the *Os Sacrum*; its Edge is almoſt ſemicircular, and is tipt with a *Cartilage*. (2.) The *Os Pubis*, which is the inferior and fore Part, and join'd with its Fellow on the other Side, makes the fore Part of the *Baſon* or *Pelvis*, as the *Ilia* does the Sides. (3.) The *Os Iſchium* or *Coxendix*; this is the lower and hinder Part; it has a large Cavity or *Acetabulum*, which receives the Head of the Thigh-Bone: At its lower Part it has a large Protuberance, which makes the Seat of the Body, or that on which we ſit.

Os Pubis.

Os Iſchium, or Coxendix.

Bones of the Arm and Hand. In the *ARM* are the following Bones, *viz.* (1.) The *Humerus*, or Shoulder-Bone; it is long and round, is articulated with the *Scapula* at the upper End, and at the Lower with the *Radius* and *Ulna*, by a *Ginglymus*. (2.) The *Ulna*, a long and hard Bone of the *Cubitus* or fore Arm; it reaches from the *Elbow* to the *Wriſt*; at its upper End it has two Proceſſes, which are receiv'd into the fore and hind *Sinus's* of the Extremity of the *Humerus*; the external or hindmoſt is the biggeſt and longeſt, call'd *Olecranon*, and makes the ſharp Point of the *Elbow*. At its lower End it is articulated with the *Radius* and the Bones of the *Wriſt*. (3.) The *Radius*, another Bone of the *Cubit*; it accompanies the *Ulna* from the Elbow to the Wriſt. In its upper End it receives the outer Protuberance of the *Humerus* in a ſmall Cavity, and near its lower End it has a ſmall Cavity which receives the End of the *Ulna*; and in its Extremity it has two *Sinus's*, which receive the Bones of the Wriſt. (4.) The Bones of the *Carpus*, or Wriſt; they are little Bones of different Figures and Bigneſs, are eight in Number, placed in two Ranks, four in each Rank. The firſt Rank is articulated with the *Radius*, the ſecond with (5.) The Bones of the *Metacarpus*, or Back of the Hand: Theſe are four in Number, which anſwer to the four *Fingers*, with one on the Side anſwering to the *Thumb*: They are articulated with the Bones of the Wriſt and Fingers. (6.) The Bones of the *Fingers* and *Thumb*; they are fourteen in each Hand, three in each Finger, and two in the Thumb. The Order in which they are diſpoſed, is call'd the firſt, ſecond, and third *Phalanx*; the firſt is longer than the ſecond, and the ſecond than the third: They

Humerus.

Ulna.

Radius.

Of the Carpus.

Metacarpus.

Of the Fingers

are

are ſeverally articulated with the Bones of the *Metacarpus* and with one another in each Finger; which Articulations make the *Joints* or *Knuckles*. (7.) The *Oſſa Seſamoidea*, like Grains of *Seſamum*; they are about twelve in each Hand, placed at the Joints of the Fingers, under the *Tendons*, where they ſerve the Office of *Pulleys*. *Oſſa Seſamoidea.*

THE Parts of the *LEG*, and the Bones thereof, are very analogous to thoſe of the *Arm*; for (1.) In the *Thigh* there is one large long Bone anſwering to the *Humerus*. At its upper End it has three *Epiphyſes*; the firſt is the large round Head, by which it is articulated in the *Acetabulum* of the *Coxendix*; the ſecond is call'd the *Trochanter Major*, and the third the *Trochanter Minor*. The lower End of this Bone is articulated by the *Ginglymus* with (2.) The *Tibia*, which is the greateſt of the two Bones of the *Leg*, the other being (3.) The *Fibula* or *Perone*; theſe two anſwer to the *Ulna* and *Radius* of the *Cubit*, and their Articulations with each other are much the ſame. At the lower End of the *Tibia* there is a Proceſs, which forms the internal *Ancle*, as the external *Ancle* is form'd by a Proceſs of the *Fibula*. The Articulation of the *Tibia* with the *Thigh Bone*, makes the *Knee*; in which there is, (4.) A little Bone call'd the *Patella* or *Knee-Pan*; it lies under the Tendons of the Muſcles which extend the Leg, and ſerves as a *Pulley* to facilitate their Motion. (5.) The Bones of the *Tarſus*, or Inſtep, are ſeven; the *Aſtragalus* or *Talus*; the *Calcaneum*, or Heel-Bone; the *Os Naviculare*; the *Oſſa Cuneiformia*, or Wedge-like Bones, which are three; and the *Os Cubiforme*, or Cube-like Bone. (6.) The *Metatarſus*, or Back of the Foot, hath five Bones; and (7.) Toes fourteen: Beſides, (8.) The *Oſſa Seſamoidea*; all which are in *Form* and *Articulation* ſo like thoſe of the *Metacarpus* and *Fingers*, before deſcribed, that nothing further need be ſaid concerning them. *Bones of the Thigh, Leg, and Foot.* *Os Femoris.* *Tibia.* *Fibula.* *Patella.* *Of the Tarſus.* *Metatarſus.* *Oſſa Seſamoidea.*

HAVING diſpatch'd *Oſteology*, we proceed to *Sarcology*, the ſecond great Part of *Anatomy*. In order to this, *Anatomiſts* divide the Trunk of the human Body into three principal *Regions* or *Cavities*. (1.) The *Head*, or upper Cavity, which contains the *Brain* and *Cerebell*; the Eyes, Noſe, Ears, and Tongue, the Organs of Senſe. (2.) The *Thorax* or Breaſt, which contains *Of Sarcology.* *The Diviſion of the Body.*

contains all from the Neck to the Midriff. (3.) The *Abdomen*, or lower Cavity, which is what we vulgarly call the *Belly*. The upper Part of the *Abdomen* is call'd *Epigaſtrium*, and its two Sides the *Hypochondria*. The middle Part of the *Abdomen*, extending from two Fingers Breadth above to the ſame below the *Navel*, is call'd the *Regio Umbilicalis*. The lower Part of the *Abdomen* is call'd the *Hypogaſtrium*; its Sides are call'd *Inguina* or Groins.

Of the common Integuments of the Body.

BEFORE we can ſpeak of *Myology*, or the Doctrine of the Muſcles, we muſt firſt take Notice of the common *Integuments* or Coverings of the Body and its Parts; and they are as follow: (1.) The *Epidermis*, *Cuticle*, or Scarf-Skin; this is that very fine Pellicle that riſes in a *Bliſter* upon any Burning, *&c.* It adheres cloſe to the true Skin, and ſerves to defend the Extremities of the fine Veſſels. (2.) The *Cutis*, or true Skin; in this we obſerve three Parts: Firſt, an infinite Number of *Papillæ Pyramidales*, which are the Ends of the Nerves of the Skin, which occaſion the Senſe of *Feeling* on the Surface of the Body. Secondly, A *Web* of *Nervous Fibres* and *Veſſels* interwoven, and is the *Parenchyma* or Subſtance of the Skin. Thirdly, Under this is an infinite Number of *Miliary Glands* encompaſſed with Fat: Theſe are the *Spiracles* of the Body, and breathe forth the Matter of *Sweat* and *inſenſible Tranſpiration*. (3.) The *Membrana Adipoſa*, or Membrane of Fat; it lies immediately under the Skin; the Fat is contain'd in a Texture of an infinite Number of fine tranſparent Veſicles or Cells. (4.) The *Membrana Carnoſa*, or fleſhy Membrane; it lies immediately under the *Adipoſa*, and adheres to it; it is conſpicuous in *Infants*, but in *Adults* it becomes obſcure, and is hid by the Fat, which overſpreads it. (5.) The *Hair* is reckon'd one of the *Common Tegaments* of the Body; each Hair has a round *bulbous Root*; is fiſtulous or hollow in many Caſes, and differs in Colour according to the Temperament of Perſons. (6.) The *Nails* are a Covering to a Part of the Body only; they are ſuppoſed to be only the Sheaths or Caſes of the *Papillæ* of the Skin on the Fingers and Toes, which dry, harden, and lie cloſe to one another, and are protruded conſtantly forwards in the Form of an *horny Subſtance*.

Epidermis, or Cutitle.

The Cutis, or Skin.

Papillæ Pyramidales.

Miliary Glands.

Membrana Adipoſa.

Membrana Carnoſa.

The Hair.

The Nails.

THE

THE next Step to the Doctrine of the Muſcles, is that of the Membranes, which wrap up and encloſe the Parts: They are of various ſorts as follow: (1.) The *Perioſteum*, which is that fine Membrane immediately *inveſting the Bones*, and which is of a moſt exquiſite Senſe. (2.) The *Meninges* of the Brain, which are two; the firſt is call'd *Dura Mater*, which is ſtrong and thick, and covers all the Cavity of the Scull; and by its Proceſſes makes the Diviſions of the two Lobes of the Brain and Cerebell. The ſecond is call'd the *Pia Mater*, which is a fine and delicate Membrane immediately covering the Subſtance of the Brain: They are both continued from the Brain with the Spinal Marrow. (3.) The *Pleura*, which is a double Membrane that covers all the Cavity of the *Thorax*, is fixed to the *Perioſteum* of the Ribs, and covers the Midriff. (4.) The *Mediaſtinum*; it is a double Membrane dividing the Cavity of the *Thorax* into two Parts, thro' the Middle from Top to Bottom; it is form'd by a Continuation of the *Pleura* coming from the *Sternum*. (5.) The *Pericardium*, ſo call'd from its *containing the Heart*, as in a kind of Purſe or Bag; it lies in the Duplicature of the *Mediaſtinum*, which firmly adheres to it, as its Point does to the middle Part of the Midriff. (6.) The *Diaphragm* or Midriff; this is rather a double Muſcle than a Membrane; it divides the *Thorax* from the *Abdomen*. Its extreme Parts conſiſt of muſcular Fibres, which all terminate in an *Aponeuroſis*, or nervous Part, in the Middle; it is perforated with ſeveral Holes, for the Paſſage of Veſſels. (7.) The *Peritonæum*; it is a thin ſoft Membrane which covers the Cavity of the *Abdomen*, and encloſes all its Contents; it is connected with the Midriff and Muſcles of the *Abdomen*; 'tis a double Membrane, and contains in its Duplicatures the *Umbilical Veſſels*, the *Bladder*, the *Kidneys*, *Ureters*, *Spermatic Veſſels*, &c. Its external Part has two Productions which paſs through the Groins out of the Belly to convey the Spermatic Veſſels in Men to the Teſticles, and for a Paſſage to the round Ligaments of the Womb in Women: Theſe are all the Membranes that can be ſimply conſider'd as ſuch, or that deſerve Notice in this Place. We are now arrived to *MYOLOGY*, or the *Doctrine of the Muſcles*; concerning theſe we ſhall take Notice of the follow-

Of the principal Membranes.

Perioſteum.

Meninges, or Pia and Dura Mater.

Pleura.

Mediaſtinum.

Pericardium.

Diaphragm.

Peritonæum.

Its Duplicatures.

Of Myology.

ing Particulars, *viz.* The *Definition* of a Muſcle, its *Parts*, the *Sorts*, the *Denomination*, the *Actions* or *Office*, and *Number* of Muſcles in each Part, and the whole human Body.

A Muſcle defined. A *MUSCLE* is defined to be, *A Bundle of fleſhy and often tendinous Fibres, of which all in the ſame Plane are parallel to one another; the Fibres are ſeverally inveſted with a particular Membrane, and all together enclosed in one common one.*

The Parts of a Muſcle. THE *Parts* of a *Muſcle* are, (1.) The *Body* or *Belly* of the Muſcle, which is the middle Part generally, and is made up of the fleſhy Fibres, which are red, lax and ſpongeous, containing a Number of ſmall Cavities, and are tied together by a Number of ſmall tranſverſe Fibres, which go from one to another, and connect them all together. (2.) The *Tendons*, which are the two Extremities; of which, that by which it ariſes is call'd the *Head*, and the other by which it is inſerted into any Part is call'd the *Tail* of the Muſcle. They conſiſt of *tendinous Fibres* equal in Number to thoſe of the Body of the Muſcle.

Belly.

Tendons.

The Kinds of Muſcles. THE *Kinds* of Muſcles are various; as (1.) Some are *Simple*; which have all their Fibres parallel and in the ſame Direction. (2.) Some *Compound*; theſe have the fleſhy Fibres of ſeveral Planes croſſing one another, or of different Directions; and may be divided into as many *ſimple ones* as is the Number of ſuch Planes of Fibres. (3.) Some Muſcles have ſeveral Heads, or ariſe by ſeveral Tendons; as the *Biceps* hath two, the *Triceps* three, *&c.* (4.) Some have *one Tendon* common to them all, as the *Tendo Achillis.* (5.) Some have only a ſmall long Body which divides into ſeveral ſmall Tendons at the End. (6.) And ſome have two Bodies each, as the *Digaſtricus.* (7.) Some Muſcles have no *Tendons*, as the *Quadratus* on the Wriſt, and ſeveral of the Face, *&c.* (8.) Some have Tendons only at one End; with various other Differences in the Form and Make of Muſcles.

Their Names. As to the *Denomination* of Muſcles, they are differently named on various Accounts; as (1.) From their *Size*; as *Vaſtus*, large; *Gracilis*, ſlender, *&c.* (2.) From their *Form*; as the *Deltoides*, *Quadratus*, &c. (3.) From the Parts they are ſituated on; as the *Frontales*, on the Forehead; *Occipitales*, on the Occiput, *&c.* (4.) The Manner of their Situation; as *Internus*,

nus, *Externus*, &c. (5.) From the Parts of their *Origin* and *Inſertion*, as the *Sternothyroides*, which ariſes from the *Sternum*, and is inſerted into the Cartilage call'd *Thyroides*. (6.) From their Courſe or Direction; as the *Rectus*, *Obliquus*, *Tranſverſalis*, &c. (7.) From their Manner of acting; as *Elevatores*, which lift a Part up; *Erectores*, which erect a Part; *Extenſores*, which extend any Part; *Flexores*, which bend it, *&c.* (8.) From the Parts of which they conſiſt; as the *Biventer*, which hath two Bellies; *Triceps*, which hath three *Heads* or *Tendons*, &c. (9.) From the *Texture*; as *Membranoſus*, *Semi-nervoſus*, &c. (10.) From their *Length*, &c. as *Longus*, long; *Brevis*, ſhort, *&c.*

The Action or Function of a Muſcle.

THE *Office* or *Function* of the Muſcles is to move the ſeveral Parts of the Body in all the neceſſary Directions of their ſeveral Motions; and this is perform'd by the Contraction of the Muſcle, which ſhortens it, and cauſes it to draw the Part into which it is inſerted, towards that whence it ariſes; and this *Contraction* is produced in the Muſcle by the *Influx* and *Rarifaction* of the Blood and Spirits diſtending the Cavities of the Fibres; which is the mechanical Cauſe of all Muſcular Motion. And ſince moſt Parts of the Body are pair'd, or have a contrary Motion, the Muſcles are reckon'd by *Pairs*; and thoſe which produce the contrary Motion in a Part, are ſaid to be *Antagoniſt Muſcles* to each other.

Their Number in the ſeveral Parts of the Body.

THE *Number* of the Muſcles in the human Body is computed by Dr. *Keill* in Pairs belonging to every Part, as follows: Of the Forehead 1 Pair, the Hind-head 1, the Ears 6, the Eyebrows 1, Eyelids 2, Eyes 6, Noſe 3, Lips 6, and a ſingle one; the Cheeks 1, Lower Jaw 6, *Uvula* 2, Tongue 3, *Os Hyoides* 5, the *Pharynx* 2, *Larynx* 7, Head 10, *Thorax* 29, *Abdomen* 5; of the *Vertebræ* 7, of the *Pudenda* in Men 4, the *Clitoris* 1, of the Bladder a ſingle one, *Anus* three ſingle ones; of the Shoulder-Blades 4, Shoulder-Bone 9, Cubit 6, the *Radius* 4, Wriſts 4, Palms of the Hands 2, Fingers 15, of the Thumbs 7, Fore-fingers 2, Little-fingers 2, of the Thighs 13, the Legs 11, the Feet 8, the Toes 24 Pair; ſo that in all there are 446 ſingle Muſcles in the Body; though ſome make more, and others reckon fewer.

BEFORE we consider the Doctrine of the *Viscera* or Bowels, it may be proper to premise a few things concerning the Doctrine of the *Glands*, which *Anatomists* call *Adenography*, as a proper Transition thereto.

Of Adenography.

A Gland, what.

A *GLAND* (vulgarly call'd a *Kernel*) is a fleshy Substance of a peculiar Nature, whose Use is to secrete and separate the Fluids from the Mass of Blood.

Conglobate.

They are of two sorts, *viz.* (1.) A *Conglobate Gland*; which is a little smooth Body wrapt up in a fine Skin, admitting only an Artery and Nerve to pass in, and a Vein and excretory Vessel to pass out; and these may

Conglomerate.

be call'd *Simple Glands.* (2.) A *Conglomerate Gland*; which is composed of several conglobate or simple Glands, all tied together, and wrapt up in one common Tunicle or Membrane; whose several excretory Ducts do sometimes all unite in one common Pipe, as in the *Pancreas*; and sometimes form several Pipes, through which their Liquor is excreted. The Structure of a *Gland* is supposed to be nothing but the Complication of a Branch of an Artery, whose farthest Extremity becomes the excretory Duct thereof. Proceed we now to the second great Part of *Sarcology*, viz.

Of Splanchnology.

SPLANCHNOLOGY, which considers the various *Viscera* or Bowels contain'd in the three Cavities of the Body: Those in the upper Cavity or Head are, the *Brain*, the *Cerebell*, the *Eyes*, the *Ears*, the *Nose*, and the *Tongue*; of which in order.

The Brain.

THE *BRAIN*, contain'd within the *Dura Mater*, consists of two Parts, *viz.* the *Cerebrum*, which lies on the fore Part; and *Cerebellum*, which lies behind; both contain'd in the *Cranium* or Scull, as in

The Cerebrum.

a Case of Bones. The *Cerebrum* is of an oblong Figure, and its Surface full of Turnings and Circumvolutions; its external Substance is said to be *Cortical* or *Cineritious*, being soft, glandulous, and of the Colour of Ashes. Its internal, call'd the *Medullary* Substance, is finer, white and fibrous; from whence the Nerves proceed: this going out of the Scull is call'd the *Medulla Spinalis*, or Spinal Marrow.

THE Brain is divided by the first Process of the *Dura Mater* into the *Right and Left Side*; which, when they come to join, leave a Space forming three Ventricles, or *Centrum Ovale*; the upper Part or Covering whereof is call'd the *Corpus Callosum*. The

Bottom

Bottom of this Space is the internal Subſtance of the two Sides gather'd together, as it were, in two Bundles, which are call'd *Crura Medullæ Oblongatæ*; upon them are the *Protuberances* call'd the *Corpora Striata*, and the *Thalami Nerv. Opticorum*. Theſe *Crura* uniting form a Body call'd the *Medulla Oblongata*, upon which are four Prominences call'd the *Nates* and *Teſtes*. From the third Ventricle goes a ſmall Hole to the Conduit call'd *Infundibulum*, which enters the Subſtance of the *Glandula Pituitaria*, ſituated in the *Sella Turcica*, in the Baſis of the Scull, and ſurrounded with a *Plexus* of ſome Branches of Arteries, call'd the *Rete Mirabile*. In the hinder Part of this Ventricle is another ſmall Hole call'd *Anus*, in the upper Part of which is ſituated the famous *Glandula Pinealis*, which *Deſcartes* imagined was the Seat of the Soul. Theſe are the chief Parts of the *Cerebrum*, and give a general Idea of its Structure.

The Cerebellum.

THE *CEREBELLUM* is much leſs than the *Cerebrum*, and is alſo compoſed of a *Cortical* and *Medullary* Subſtance; its Superficies conſiſts of Foldings like Segments of Circles, one within another; they grow leſs as they approach the fore and hind Part, where they ſeem to reſemble two *Worms*, and are therefore call'd *Proceſſus Vermiformes*. The Part of the *Medulla Oblongata*, which is between the *Cerebrum* and *Cerebellum*, is call'd the *Iſthmus*. The *Uſe* or *Function* of the Brain (which is a *Gland* of the *Conglobate* Sort) is to ſeparate the fineſt and moſt ſubtile Parts of the Blood, call'd *Animal Spirits*, which are received by the Nerves, and convey'd to all Parts of the Body; in which they are the Cauſe of all that *Senſation* we call *Feeling*.

The Uſe of the Brain.

Of the Eye, and its external Parts.

THE *EYE* is the noble Organ of *Sight*; on the external Parts it is adorn'd above with a curved Row of *Hairs*, call'd the *Eyebrow*; and cloſed with two *Eyelids*, which are edged with a Border of Hairs call'd *Cilia*. The Meeting of the *Eyelids* make two Corners call'd the *greater* and *leſſer Canthus* of the Eye; within the great *Canthus* lies the *Glandula Lachrymalis*, which ſeparates the Matter of *Tears* for moiſtening the Eye, and inner Membrane of the Noſtrils, where 'tis convey'd from the *Lachrymal Bag* by a ſmall Pipe thro' the *Os Lachrymale*. The Globe

of the Eye is moved by four ſtrait Muſcles and two oblique ones.

Its Coats. THE *Coats* of the Eye are (1.) The *Conjunctiva*, which makes the White of the Eye, and lines the inner Part of the Eyelids, joining the Globe to the Edges of the Orbit. (2.) The *Sclerotica*; it is thick, hard, and ſmooth; opake behind, but tranſparent before, where it makes (3.) The *Cornea*, which is ſurrounded by the White of the Eye, and has a moſt exquiſite Senſe. (4.) The *Choroides*; it lies under the *Sclerotica*, and is much thinner than it. In this Coat is a ſmall Hole before, call'd *Pupilla*, or Pupil of the Eye. (5.) The *Uvea*; it ſurrounds the Pupil, and by its muſcular circular Fibres contracts and dilates the Pupil as Occaſion requires; it lies on the Cryſtalline Humour; the Outſide of this Coat is call'd the *Iris*, of different Colours in ſeveral People. On the Inſide is the *Ligamentum Ciliare*, by the Contraction of whoſe Fibres the Eye is made more prominent, and the *Axis* of Viſion lengthen'd. (6.) The *Retina*, or Net-like Expanſion of the medullary Fibres of the *Optic Nerve* over the Bottom of the Eye, upon the Surface of the Glaſſy Humour. On this Coat the Impreſſions of Objects are made, in order to be convey'd to the *Senſory* of the Brain.

The Conjunctiva. *Sclerotica.* *Cornea.* *Choroides.* *Uvea.* *Retina.*

Of the Humours of the Eye. THE *Humours* of the Eye are three, *viz.* (1.) The *Aqueous*, or Watry Humour; it lies under the *Cornea*, and makes the fore Part of the Globe. (2.) The *Cryſtalline Humour*; it lies next behind the *Aqueous*; it is the leaſt of the Humours, but the moſt denſe; its Form is that of a double *convex Lens*; it is cover'd with a fine Coat call'd *Aranea*. (3.) The *Vitreous* or glaſſy Humour; it is very much like the *White of an Egg*, fills all the hind Part of the Cavity of the Globe, is the largeſt of the three Humours, and is contain'd in a Coat of the ſame Name. By it the *Cryſtalline* is adjuſted to a proper Diſtance from the *Retina* for *diſtinct Viſion*, the Manner whereof has been already explained.

Aqueous. *Cryſtalline.* *Vitreous.*

Of the Ear. THE *EAR* is the Organ of *Hearing*, and is next to be deſcribed. It is divided into the *External* and *Internal* Part; the *External* is divided into the *Pinna* or upper Part, and *Fibra* or Lobe, which is the lower. The Parts of the *Pinna* are the *Helix*, or circular Border of the Ear; and *Anti-helix*, which is a Semi-

Its External Part.

circle

circle within the other: The lower End of this makes a Prominence call'd the *Anti-tragus*, with reſpect to another oppoſite to it call'd the *Tragus*, by reaſon of ſome Hair that is on it. The Cavity made by the Extremities of the *Helix* and *Anti-helix* is call'd *Concha*. The Hollow in the Middle of the Ear is call'd *Alvearium*; from whence there goes a Paſſage to the *Tympanum* call'd *Meatus Auditorius*.

Its Internal Parts.

At the End of the *Meatus Auditorius* is a thin tranſparent Membrane placed a little obliquely acroſs the Paſſage, call'd the *Membrana Tympani*, or Head of the Drum; for the Cavity behind this Membrane is call'd the *Tympanum* or Drum, in which there are four little Bones, from their Shape call'd the *Malleolus* or Hammer, the *Incus* or Anvil, the *Stapes* or Stirrop, and *Os Orbiculare* or round Bone. The next Cavity is call'd *Veſtibulum*, in the *Os Petroſum*; into it open the ſemicircular Pipes of the third Cavity call'd the *Labyrinth*. The laſt Cavity of the Internal Ear is call'd *Cochlea* from its Likeneſs to a *Snail's Shell*. The *Auditory Nerve*, being finely expanded over the internal Surface of theſe Cavities, receives the Impreſſions of the included Air according as it is agitated by the Motion of the external Air beating on the *Membrana Tympani*, thus exciting in the *Senſory* of the Brain the *Ideas* of *Sounds*.

Of the Noſe and its Parts.

The *NOSE* is appointed not only for the Organ of the Senſe of Smelling, but alſo for an *Emunctory* to the Brain, and for Reſpiration. Its upper Part conſiſts of two Bones cloſely join'd together on the upper Side; its lower Part is made of four Cartilages, two of which are fix'd to the two Bones aforeſaid, and alſo join'd on the upper Side; the other two lie on the lower Ends of theſe, being tied thereto by a Membrane, and are call'd *Alæ Narium*. The Cavity of the Noſe is divided into two Parts, call'd *Nares* or Noſtrils, by a Partition *bony* on the upper Part, and *cartilaginous* on the lower: The upper End of each Noſtril divides into two Cavities, of which one goes to the *Os Spongioſum*, and the other opens behind the Palate into the Mouth for Reſpiration. The *Oſſa Spongioſa* fill the upper Cavity of each Noſtril, the ſeveral *Lamina* of which, being cover'd with a fine Membrane on which the Fibres of the *Olfactory* Nerve are ſpread, become the immediate Organ of *Smelling*.

Smelling. The Cavity of the Nose is cover'd with a glandulous Membrane; its Glands separate the Matter we call *Mucus*, which, with the Hair growing on it, call'd *Vibrissæ*, prevent any Filth from ascending too far into the Nostrils.

Of the Mouth. THE *MOUTH* consists of the Lips, the Gums, the Palate, the *Uvula*, and the Glands; of which in Order. (1.) The *Lips* are made up of several Muscles, which give them all their various Motions for shutting and opening the Mouth, and articulating the Voice. *Lips.* (2.) The *Gums* are a hard sort of Flesh form'd by the Union of the *Periosteum* and the internal Membrane of the Mouth; they are set about the Teeth to keep them firm in their Sockets. *Gums.* (3.) The *Palate*, or Roof of the Mouth, is cover'd with a pretty thick Membrane, in which are a great Number of small Glands, which discharge a Liquor for moistening and dissolving the Aliments. *Palate.* (4.) The *Uvula* is a Production of the internal Membrane of the Mouth; its Substance is lax and glandulous; it hangs from the Roof of the Mouth about the *Larynx*, between the *Tonsils*; it is moved by two Pair of Muscles, which give it Motions proper for articulating the Voice, and to prevent any thing's regurgitating into the Nose in Deglutition. *Uvula.* (5.) The *Glands* of the Mouth are of several Sorts, as the *Parotides* under the Ear, the *Maxillares* under the Jaw, the *Sublinguales* under the Tongue, the *Tonsillæ*, or Almonds, at the Basis of the Tongue; with several other small ones; all which serve to separate the *Saliva*, or Spittle to moisten the Food in Mastication. *Glands of the Mouth.*

Of the Tongue. THE *TONGUE* is the grand Organ of *Taste* and *Speech*; it is connected to the *Os Hyoides* and to the *Larynx*, by a Ligament in the Middle of its lower Side; it is of a *muscular* Substance, and is cover'd with two Membranes; the external hath a great Number of *Papillæ Pyramidales*, which seem to serve as Cases to the *Papillæ Nervosæ*, which lie under them in the internal Membrane. *Papillæ Nervosæ.* These nervous *Papillæ* being made of the Extremities of the *Gustatory* Nerve of the Tongue, are the immediate Organ of Tasting. The Tongue is moved by three Pair of Muscles, the *Styloglossus*, *Genioglossus*, and *Ceratoglossus*, and the *Os Hyoides*, with Motions pro-

per

per for the forming and articulating the various *Sounds of Speech.*

Of the Viſcera in the Thorax.

The *Upper* is join'd to the Middle Cavity of the Body by the *Cervex* or Neck, in which is the *Jugulum* or Throat; which contains two remarkable Parts, the *Oeſophagus*, and the *Trachea Artera*, or Wind-Pipe.

The Oeſophagus.

The *OESOPHAGUS*, or Gullet, is a long round Canal, by which the Aliments deſcend from the Mouth to the *Stomach* in the *Abdomen:* It is compoſed of three Coats, the firſt membranous, the ſecond fleſhy and muſcular; the laſt, or inmoſt, is white, and beſmeared with a ſoft ſlimy Subſtance, ſeparated by the Glands between this and the ſecond Coat, to facilitate the Deſcent of the Aliments in Deglutition. The upper End of the Gullet is call'd *Pharynx*, and is moved by two Pair of Muſcles, *viz.* the *Style-pharyngæus*, and the *Oeſophagæus*, and the periſtaltic Motion of the fleſhy Fibres of its Coats; by all which *Deglutition*, or Swallowing, is performed.

Pharynx.

The Trachea Arteria.

The *TRACHEA ARTERIA*, or Wind-Pipe, is the Paſſage from the Mouth to the Lungs. The upper End of it is call'd the *Larynx*; it lies below the Root of the Tongue, before the *Pharynx*; it is compoſed of five Cartilages, the firſt call'd *Scutiformis* or *Thyroides*, the ſecond *Cricoides* or *Annularis*, the third and fourth *Arytænoides*; theſe make the *Rimula* call'd the *Glottis:* The fifth is the *Epiglottis*; this covers the *Glottis* or Mouth of the *Larynx*, ſo that none of the Aliments may deſcend thro' the *Trachea* in Eating and Drinking. The Tube of the *Trachea* is compoſed of annular Cartilages, which are at ſmall and equal Diſtances from one another. The hind Part of theſe Cartilages are membranous, for the Conveniencies of the *Oeſophagus*, which lies along that Part. The Uſe of the *Larynx* is to form and tune the Voice, and of the *Trachea* to convey Air to and from the Lungs. This brings us to the Middle Cavity, in which we firſt meet with

Larynx, its Cartilages.

Its Uſe.

Of the Lungs.

The *LUNGS*; they are divided into two Lobes by the *Mediaſtinum*; they are tied to the *Sternum* before, and to the *Vertebræ* behind. The *Trachea* divides into ſeveral Branches as it enters the Lungs; which Branches, and their Subdiviſions, are call'd *Bronchi*;

Bronchi; the Cartilages of the *Bronchi* are perfectly *annular*; the Extremities of these Branches open into the Cavities of an infinite Number of Vesicles disposed like Bunches of Grapes upon them: these make the peculiar Substance of the Lungs. In the Dilatation of the *Thorax*, the Air rushes into the said Vesicles, and distends the Lungs; this we call *Inspiration*: But the Cavity of the Breast being straiten'd, compresses the Lungs, and expels the Air again, which is call'd *Expiration*. These two alternate Actions are the Office of the Lungs, and absolutely necessary to Life.

Inspiration.

Expiration.

Their Office.

Of the Heart. THE *HEART* is the next, and the noblest Organ of *Animal Life*; its Situation has been said, its Form is well known, its Substance is of muscular Flesh; for the Heart is a Muscle of various Orders of Fibres, by which means it is capable of Contraction and Dilatation. In the Heart are two large Cavities call'd *Ventricles*, the Right and the Left; above each of these is an *Auricle* or little Ear; in the Right *Auricle* opens the *Vena Cava*, and the *Vena Pulmonalis* in the Left. The *Arteria Pulmonalis* arises from the Right Ventricle of the Heart, and the *Aorta* or Great Artery from the Left Ventricle. In the Dilatation of the Right *Auricle* the Blood rushes in from the *Vena Cava*, which, by its Contraction, is thrust into the Right Ventricle, which, by its Contraction, drives it into the *Pulmonary Artery*, by which it is circulated thro' the *Lungs*, and then return'd by the *Pulmonary Vein* into the Left *Auricle*, and from thence into the Left *Ventricle*, which, in its Contraction, forces it into the Trunk of the *Aorta*, which carries it to all Parts of the Body; from whence 'tis return'd by the Veins to the Right *Auricle*. And thus by an alternate Dilatation and Contraction (call'd the *Diastole* and *Systole*) of the *Auricles* and *Ventricles* of the Heart, the *Circulation of Blood* is effected, which is the proper *Function* of the *Heart*.

Its Auricles and Ventricles.

The Circulation of the Blood.

Diastole and Systole.

Of the Thymus. THE *THYMUS* is another *Viscus* of the *Thorax*; it is a conglobate Gland situated just under the *Claviculæ*, is large in Infants, but grows less as they grow older. Its Use is supposed to be for a *Diverticulum* to the Chyle in the *Thoracic Duct* of a *Fœtus*.

Of the Breasts. THE *BREASTS* are the last Parts observable about the *Thorax*; they are situated on the external Part,

Part, one on each Side. Their Substance is composed of a great Number of Glands of an oval Figure, which lie in a great Quantity of Fat. Their excretory Ducts, as they approach the Nipple, join and unite, till at last they form seven, eight, or more small Pipes call'd *Tubuli Lactiferi*, which communicate by several cross Canals, and all terminate in the Extremity of the Nipple, where they pour out the Milk, separated by the Glands, in *Suction*.

Of the Viscera of the Abdomen.

THE *VISCERA*, or Bowels of the third or lowest Cavity, call'd the *Abdomen*, now come to be described. When the common Integuments and the *Peritonæum* are laid open, the first thing that presents itself to View, is

The Omentum.

THE *OMENTUM*, or Cawl; this is a delicate and fine double Membrane, interlarded with a great deal of Fat, and, like a Bag, contains and covers the greatest Part of the Intestines. It is connected to the Liver, Spleen, *Duodenum*, *Colon*, and Bottom of the Stomach. Its Use is to contain and cherish the Intestines with gentle Warmth, and thereby promote Digestion in the Stomach, and help the Concoction of the *Chyle* in the Guts; to lubricate and facilitate their peristaltic Motions, and to sustain the Vessels which go from the Spleen to the other *Viscera*.

Of the Stomach.

THE *STOMACH* is situated just under the *Midriff*, is of a long, wide, and roundish Figure. It hath two Orifices; by the Left, call'd *Cardia*, it is join'd to the *Oesophagus*; and by the Right, call'd *Pylorus*, it is united to the first of the Intestines. It is made of four Coats; the external one is common, the second is muscular, being made of strait and circular Fibres; the third is fine, thin, and wholly *nervous*; the fourth, and inmost, is full of Plaits and Wrinkles, in which are a great Number of Glands, which separate a Liquor which besmears the Cavity of the Stomach, and helps Digestion. The Stomach receives the Aliments by the *Oesophagus*, which by the Action of its muscular Coat, and fermenting Juices, are separated, dissolved, and reduced to a *white liquid Substance*, call'd *Chyle*, which is then protruded thro' the *Pylorus* into the Intestines; and this is call'd *Digestion*, which is the proper Office of the *Stomach*.

Pylorus.

Digestion.

Chyle.

THE

Of the Inteſtines. THE *INTESTINES*, or Guts, are a long and large Pipe, which reaches from the *Pylorus* to the *Fundament* in various Circumvolutions and Turnings. They are knit all along to the Edge of a Membrane call'd the *Meſentery*. They are compoſed of three Coats, of which the firſt is common, the ſecond is made of ſtrait and ſpiral Fibres, and the third and inmoſt Coat is rugous, or full of Plaits, call'd *Valvulæ Conniventes*, which retard the Progreſs of the *Fæces*. This Tube is divided into three ſmall and three great Guts; the ſmall ones are the *Duodenum*, the *Jejunum*, and the *Ileum*; the great ones are the *Cæcum*, the *Colon*, and the *Rectum*, the Extremities of which make the *Anus* at the Fundament. The *Chyle* entring the *Duodenum* hath its fine nutritive Parts abſorb'd by the Orifices of the *Lacteal Veins*, and the Remainder is, by the periſtaltic Motion of the Guts, gradually convey'd forward to be ejected by the Body as uſeleſs Excrements or *Fæces*.

Small and great Guts.

Of the Meſentery. THE *MESENTERY* is that Membrane which hath the Guts connected to its circular Edge to prevent their entangling one with another; it is tied to the three firſt *Vertebræ* of the Loins; upon it run the *Venæ Lacteæ*, or *Lacteal Veins*, which imbibe the *Chyle* from the ſmall Guts; as alſo the *Vaſa Lymphatica*, or *Lymphatic Veſſels*. By theſe two Sorts of Veſſels the *Chyle* and the *Lympha* are carried to the ſeveral *Veſicular Glands* of the *Meſentery*, from which go *Lacteals* of a larger Size, and carry the *Chyle* to the *Receptaculum Chyli*, which ſeems to be only a Bag formed by the Union of *Lacteals* and *Lymphatics*: It is ſituated between the great Artery and *Vertebræ* of the Loins. From thence the *Chyle*, diluted with the *Lympha*, is convey'd in a Tube through the *Thorax* (which therefore is call'd the *Thoracic Duct*) and then up the Neck; whence it is conducted to the Left *Subclavian Vein*, into which it is diſcharged by one or two Orifices, where it mixes, and is made to circulate with the Maſs of Blood, for the Nouriſhment of the Body.

Venæ Lacteæ. *Vaſa Lymphatica.* *Receptaculum Chyli.* *Thoracic Duct.*

Of the Pancreas. THE *PANCREAS*, or Sweet-bread, is a large Gland of the *Conglomerate* Sort; it lies acroſs the *Abdomen*, reaching from the Liver to the Spleen; its glandulous Subſtance ſeparates a Liquor call'd the *Pancreatic Juice*, which is conveyed by a Duct to the

Its Uſe.

the *Duodenum*, in order to dilute the *Chyle*, that it may the more eaſily enter the Mouths of the *Lacteal Veſſels*.

Of the Liver.

THE *LIVER* lies in the Right *Hypochondrium*; it is almoſt round, and pretty thick, convex on its upper Side, and ſomewhat concave on the under; its fore Part is divided into two, where the umbilical Veſſels enter it. The Subſtance of the Liver is glandulous, which ſeparates the *Gall* from the Blood brought thither by the *Vena Portæ*, which is then carried to the *Veſica Fellis*, or Gall-Bladder; from hence goes a Duct call'd the *Ductus Cyſticus*, which joins another from the Liver call'd the *Porus Bilarius*, in which the *Bile* is found; theſe two Ducts uniting form one call'd *Ductus communis Choledochus*. By this the *Gall* or *Bile* is carried alſo to the *Duodenum*, to be mixed with the *Chyle*, in order to blunt or ſheath its Acids, that it may be ſo far attenuated as to be meetly diluted by the *Pancreatic Juice*.

Veſica Fellis.

Porus Bilarius

Bile, its Uſe.

Of the Spleen.

THE *SPLEEN* is ſituated in the Left *Hypochondrium*; between the Ribs and the Stomach it is tied to the *Peritonæum*, *Diaphragm*, and *Omentum*; it is of a Lead Colour, and an oblong Figure. The Subſtance of the Spleen is compoſed of an Infinity of Membranes, which form little Cells and Cavities of different Figure and Bigneſs, always full of Blood. It is ſuppoſed to be a *Reſervoir* or *Diverticulum* to the arterial Blood in paſſing to the *Liver* for the Secretion of the *Bile*.

Of the Kidneys.

THE *KIDNEYS* are two, one on each Side; the Right is under the Liver, the Left under the Spleen; their Figure is well known: The Kidneys are Glands of the *Conglomerate* Kind, conſiſting of an infinite Number of little Glands, of a roundiſh Figure, in its outer Subſtance, which ſecern the *Urine* from the Blood brought to them by the Emulgent Arteries. The Urine is convey'd by ſmall Tubes, uniting in their Progreſs, and forming larger Bundles, whoſe Extremities pierce and diſcharge it into the *Pelvis* or Baſon, which is a Cavity form'd by the Dilatation of the *Ureters*, which are long, ſlender, and membranous Tubes that carry the Urine from the Kidneys to the Bladder, one on each Side: They are obliquely inſerted near the Neck of the Bladder.

Their Uſe.

Ureters.

JUST

The Renal Glands.

JUST above the Emulgent Veſſels are ſituated two Bodies, one on each Side, call'd *Capſulæ Atrobilares*, or *Glandulæ Renales*, the Renal Glands, wrapt up in ſome Fat; they are often of different Figure, are biggeſt in a *Fœtus*, and their Uſe is not yet known.

Of the Bladder.

THE *BLADDER* is ſituated in the Duplicature of the *Peritonæum*, in the lower Part of the *Abdomen*. It is tied to the Navel by the *Urachus* degenerated into a Ligament. It is compoſed of three Coats; the firſt is common, the ſecond muſcular, the the third is full of Wrinkles, and is both glandulous and nervous. It has a conſtrictive Muſcle around its Neck, call'd *Sphincter Veſicæ*, which prevents the Urine from running out continually. When the Bladder is full, the Urine is, by the muſcular Power of the ſecond Coat, expell'd the Body thro' the *Urethra*, into which the Bladder opens.

Its Sphincter.

Of the Parts of Generation in Men.

WE are now arrived to the *Parts of Generation*, which we ſhall give a ſhort Account of in both *Sexes*; and firſt of thoſe in Men.

Spermatic Arteries.

THE Parts ſerving to Generation in Men are the following: (1.) The *Spermatic Arteries*, which ariſe from the *Aorta*, a little below the Emulgents, and carry the Blood to the Teſticles for the *ſeminal Secretion*. (2.) The *Spermatic Veins*; theſe carry the Blood back again to the *Vena Cava*. In their Progreſs, a little above the *Teſtes*, they divide into ſeveral Branches, which make various Inoſculations, till they come near the *Abdomen*, where they all unite into one Trunk, and from their Shape are call'd *Corpora Pyramidalia*: Theſe Veins and Arteries together are call'd the *Vaſa Præparantia*. (3.) The *Teſtes*, or Teſticles, their Subſtance is *vaſcular*, or compoſed of infinite *Plexus* or Convolutions of the fine Branchery of the Spermatic Veſſels; they are two in Number, and are contain'd in a common Integument, like a Purſe, call'd the *Scrotum*; and each Teſticle hath two proper Coats, the outermoſt call'd *Tunica Vaginalis* or *Elythroides*; the other is call'd *Albuginea*, becauſe of its *white* Colour. The *Teſtes* are ſuſpended in the *Scrotum* by the *Cremaſter* Muſcle, which draws them up *in Coitu*. (4.) The *Epididymis*, which is a Body form'd on the upper Part of each Teſticle, by the ſeveral *Windings* and *Intervolutions* of a fine Tube, which receive the

Spermatic Veins.

Corpora Pyramidalia.

Teſtes.

Scrotum.

Epididymis.

Semen

Semen immediately from the *Teſtes*. (5.) The ſame Tube or Canal, continuing and aſcending from the Extremities of the *Epididymis*, form the *Vaſa Deferentia*: Theſe enter the *Abdomen*, and proceed with the *Semen* to (6.) The *Veſiculæ Seminales*, which are two in Number, one on each Side, on the under Part of the Neck of the Bladder. In theſe Veſicles the *Semen* is repoſited till the time of Coition, when it is again received by the *Vaſa Deferentia*, and carried through the Subſtance of (7.) The *Proſtatæ*, or *Corpus Glandoſum*, whoſe Glands ſeparate a clear mucilaginous Humour, which *in Coitu* is carried into the *Urethra*, at the ſame Place where the *Semen* is alſo diſcharged from the *Vaſa Deferentia* at the ſame time. (8.) The *Penis* or Yard, whoſe Subſtance is compoſed of two ſpongeous Bodies call'd *Corpora Cavernoſa*, which ariſe diſtinctly from the lower Part of the *Os Pubis*, and terminate at the Extremity of the *Penis* in the *Glans*, which is always kept ſoft, moiſt, and very ſenſible, by a kind of Hood call'd *Præputium* or Foreſkin, made by a Reduplication of the Skin of the *Penis*. On the under Side of the *Penis*, or the *Corpora Cavernoſa*, there runs a Pipe call'd the *Urethra*, thro' which the Urine is diſcharged from the Bladder, and the *Semen* injected into the Womb in the Act of Generation.

Vaſa Deferentia.

Veſiculæ Seminales.

Proſtatæ.

Penis.

Corpora Cavernoſa.

Glans.

Præputium.

Urethra.

THE Parts ſubſervient to the ſame Purpoſe in Women are, (1.) The *Vagina*, the external Orifice of which is the *Pudendum*, the two *Labia* of which in Adults are covered with Hair. The ſoft Protuberance above is call'd *Mons Veneris*. Immediately within the *Labia* are, (2.) The *Nymphæ*, one on each Side; they reſemble the red Membranes under the Throats of Pullets. In the Angle of the *Vulva*, next the *Pubis*, is the Extremity of (3.) The *Clitoris*, which is in Shape and Parts much like the *Penis* in Men, but much leſs; it is alſo erected, and becomes the Seat of Pleaſure in Acts of Venery. (4.) The *Hymen*; it is a circular Folding of the inner Membrane of the *Vagina*; which, being ſet acroſs the Paſſage, is broke at the firſt Embrace, and its Fibres contracting in three or four Places, form what are call'd the *Glandulæ Myrtiformes*. (5.) In this Part of the *Pudendum muliebre* opens the Orifice of the *Urethra*. (6.) In the Paſſage of the *Vagina*

The Parts of Generation in Women.

Vagina.

Nymphæ.

Clitoris.

Hymen.

Urethra.

Vagina opens the Orifices of numerous excretory Ducts from Glands within the inner Membrane; they are call'd *Lacunæ*; they pour forth a viscous Liquor for increasing *Titillation*. (7.) The *Womb* or *Matrix*, is joined to the *Vagina*, which communicates with it by a small Orifice. The Figure of the Womb is like that of a Pear; it is situated between the Bladder and Strait Gut: Its Substance is composed of fleshy Fibres of a muscular Nature, which render it capable of great Dilatation and Contraction. It is tied by two sorts of Ligaments call'd *Ligamenta Lata*, or broad ones; and *Ligamenta Rotunda*, or round ones; two of each. (8.) The *Spermatic Arteries* and *Veins* spent on the *Ovaria*, *Womb*, and *Vagina*. (9.) The *Ovaria* or Testicles, which are near half as big as those in Men, but are flattish and smooth before Conception. (10.) The *Tubæ Fallopianæ* are situated one on each Side the Womb; they arise from its Bottom by a narrow Beginning, and dilate towards the Extremities in Form of a Trumpet, where they contract into a small Orifice; from whose Circumference they dilate into a broad jagged Membrane call'd *Morsus Diaboli*. These are the Parts of Generation in Women.

Lacunæ.
Womb or Matrix.
Spermatics.
Ovaria.
Tubæ Fallopianæ.
Morsus Diaboli.

Of Angiology.

We are now come to *ANGIOLOGY*, the third great Part of *Sarcology*; and this comprehends three other Subdivisions, *viz.* (1.) *Neurology*, or the Doctrine of the *Nerves*. (2.) *Arteriology*, of the *Arteries*; and (3.) *Phlebotology*, which treats of the *Veins*. A little of each of these in brief must suffice. And first of

Neurology.

NEUROLOGY, which describes the Nature, Number, Uses, &c. of the *Nerves* of the Human Body.

A Nerve, what.

A *Nerve* is a long and small Bundle of very fine Pipes, or hollow Fibres, wrapt up in the *Dura* and *Pia Mater*; which last not only covers them all in common, but every Fibre in particular.

Their Origin.

The *Origin* or Beginning of all the Nerves is from the *Medullary Substance* of the Brain and Spinal Marrow: They generally arise by Pairs, *viz.* Ten Pair which come out of the Scull, and thirty from between the *Vertebræ* of the Back Bone.

The Nerves of the Brain.

The ten Pair of Nerves which arise from the Brain, and come out of the Scull, are as follows: (1.)

Olfactory Nerves.

The *Olfactory Nerves*; they arise from the fore Part of the Basis of the Brain, pass thro' the Holes of the

Os

Os Cribriforme, and are spread upon the *Os Spongiosum* in the Nostrils. (2.) The *Optic Nerves*; they proceed from the *Corpora Striata* and *Thalami Nerv. Opt.* thro' the foremost Holes of the *Os Sphænoides* into the Orbit of the Eye, where they spread upon the glassy Humour of the Eye. (3.) The *Motores Oculorum*; they arise from the *Medulla Oblongata*, and are spent chiefly on the Coats and Muscles of the Eye. (4.) The *Pathetics*, which pass through the *Foramina Lacera*, are wholly spent on the Muscle of the Eye call'd the *Obliquus Major*. (5.) The *Fifth Pair* are the largest of the Brain, and each divides into three other Branches, which are spent on the Muscles and Parts of the *Face*, *Mouth*, &c. (6.) The *Sixth Pair* is a small one, wholly spent on the *Abducent Muscle* of the Eye. (7.) The *Auditory Nerves*; these pass the Holes of the *Os Petrosum*, and are partly spent on the internal Cavity of the Ear, and partly on the external Ear, and other Parts of the Mouth and Face. (8.) The *Par Vagum*; it goes down the Neck, together with the *Accessory Nerve*, and dividing into various Branches, are spent on the *Viscera* and other Parts of the *Thorax*, &c. (9.) The *Gustatory Nerve*; it passes out of the Occipital Hole, and is distributed in the Body of the Tongue. (10.) The *Tenth Pair* is spent principally on the oblique Muscles of the Head.

Optic Nerves. *Motores Oculorum.* *Pathetics.* *Fifth Pair.* *Sixth Pair.* *Auditory Nerves.* *Par Vagum.* *Gustatory Nerve.* *Tenth Pair.*

Of the *Thirty Pair of Nerves* from the *Medulla Spinalis*, (1.) *Seven Pair* come out betwixt the *Vertebræ* of the Neck, and are chiefly spent in numerous Branches on the Muscles, &c. of the Head, Neck, and Arms. (2.) *Twelve Pair* from the *Vertebræ* of the Back, of which the first goes to the Arm, the last to the Muscles of the *Abdomen*, and the rest to the Intercostal, &c. Muscles of the Ribs and *Vertebræ*. (3.) *Five Pair* from the *Vertebræ* of the Loins; these furnish the Muscles of the lower Belly, the *Inguen*, the Yard, &c. with a Number of Branches; but the Trunk of the third and fourth join and make the *anterior Nerve* of the Thigh; the last also enters the Thigh. (4.) *Six Pair* come out of the *Vertebræ* of the *Os Sacrum* on the Foreside. The first four Pair give some Twigs to the Parts in the Bason; but their great Branches, with the last, and a Branch of the fourth of the Loins, make the *Sciatic Nerve*, which

The Nerves of the Medulla Spinalis.

goes down the hinder Part of the Thigh to the Leg and Foot, and is the largeſt Nerve in the Body. The fifth and ſixth are ſmall, and diſperſed on the Bladder, Sphincter, and Privy Parts.

The Uſe of the Nerves.

THE Uſe of the Nerves is to convey the *Animal Spirits*, ſeparated from the Blood in the Brain and Spinal Marrow, to all the Parts of the Body, as being the ſuppoſed Organs which convey to the Mind the Impreſſions made on any Part, and thus effect what we call *Senſation*.

Arteriology. Arteries, what.

ARTERIOLOGY exhibits a View of the Doctrine of the *Arteries*, which are thoſe Tubes or Canals that convey the Blood from the Heart to all Parts of the Body. Each Artery is compoſed of three Coats, of which the middle one doth conſiſt of of ſpiral Fibres, which render it very *elaſtic* and *contractile*, and is the Cauſe of Pulſation in the *Arteries*.

The Aorta. Coronariæ.

THE great *Arterial Trunk*, whence all the larger Branches proceed, ariſes from the Left Ventricle of the Heart, and is call'd the *Aorta*; It ſends out two ſmall Branches to the Heart itſelf, call'd *Coronariæ*; after this it aſcends a little, and then turning downwards, forms the Deſcending Trunk of the *Aorta*. From the upper Side of the Crook it ſends out three Branches; two on the Left Side, *viz.* the *Subclavian*, and one *Carotide*; and one on the Right Side, *viz.* the Right *Subclavian*, from which ariſes the Right *Carotide Artery*.

Subclavians.

THE *Subclavian Arteries* on each Side ſend out the *Mediaſtinal* and *Mammary* Branches to the Breaſts, the *Cervical* to the Neck and Head; and then the *Subclavian* paſſing the *Muſculus Scalenus*, goes to the

Carotides.

Arm, and is call'd the *Axillary Artery*. The *Carotide Arteries* aſcending the Neck, furniſh all the Parts of the Head and Brain with proper Branches.

Deſcending Trunk of the Aorta, and its Branches.

THE *Deſcending Trunk* of the *Aorta* ſends out firſt the *Bronchial* to the Lungs, then the *Interceſtal* Arteries in the *Thorax*; to the *Diaphragm* it gives the *Phrenic* Branch; and entring the *Abdomen* it ſends out the *Cæliac*, which divides into two Branches; one to the Right, which gives the *Gaſtric* to the Stomach, the *Cyſtic* to the Gall-Bladder, the *Epiplois* to the *Omentum*, &c. the other to the Left, which ſends

the

the *Splenic* to the Spleen, &c. Then the *Aorta* ſends out the *Meſenteric* to the Meſentery, the *Adipoſæ* to the Renal Glands, the *Emulgents* to the Kidneys, the *Spermatics* to the Teſticles, the *Lumbares* to the Muſcles of the Loins. Here it divides into two large Trunks call'd the *Iliac Arteries*; each of which is again divided into the External and Internal *Iliac*. The Internal ſends Branches to the Parts in the *Pelvis*, the *Pudenda*, and Muſcles of the *Abdomen*, *Thighs*, &c. The External Iliac, leaving the Cavity of the *Abdomen*, ſends out the *Epigaſtric* to the *Muſculus Rectus*, and the *Pudenda* to the Privities; then going down the Thigh and Leg, it is call'd the *Crural Artery*, which ſpends itſelf in various Branches on the Muſcles thereof. So much for the *Arteries*; next

PHLEBOTOLOGY teaches the Doctrine of the *Veins*, which are only a Continuation of the extreme *Capillary Arteries*, which is what the Anatomiſts call the *Anaſtomoſis* of the Veins and Arteries. They return the Blood to the Heart in numberleſs Branches, which, uniting as they approach it, form at laſt three large Trunks of Veins, *viz.* the *Cava deſcendens*, which brings the Blood back from all the Parts above the Heart; the *Cava aſcendens*, which returns it from all the Parts below the Heart; and the *Vena Portæ*, which carries the Blood to the Liver for the Secretion of the Bile.

Phlebotology.
Veins, what.
Anaſtomoſis.
Vena Cava.
Vena Portæ.

THE chief Branches of the Veins correſpond to thoſe of the Arteries, as coming from the ſame Parts to which they go, and have therefore the ſame Names in general; as the *Subclavians*, the *Carotides* or *Jugulars*, the *Cervicals*, *Mammaries*, *Axillaries*, *Emulgents*, *Spermatics*, *Iliacs*, &c. with ſome few having proper Names.

The *Coats* of the *Veins* are of courſe the ſame with thoſe of the Arteries; only the Muſcular Coat is as thin in all the Veins as it is in the Capillary Arteries, and conſequently there is not that *Elaſticity* and contractive Power in theſe as in them; nor is there any *Pulſation*, becauſe the Blood enters the *Veins* in a continued even Stream, and moves from a narrow Channel into a wider, and ſo does not preſs againſt the Sides of the Veins as againſt thoſe of the Arteries.

Veins have no Pulſation, and why.

The Valves.

THE *Veins* perpendicular to the Horizon, as also other Ducts, as the *Lymphatics*, the *Thoracic Duct*, &c. have thin Membranes or *Valves* placed in their Cavities, which [illegible] the Course of the Blood or Fluids [illegible] but are clofed by the reflunt Blood, and so hinder its Regress. *Such is the admirable Providence of Nature in all her Handy-works!*

Of PHARMACY; *or the Art of Compounding* MEDICINES.

PHARMACY is the Art of making Medicines, and it hath been uſually diſtinguiſh'd into two Kinds, *Chymical* and *Galenical*. *Chymical Pharmacy* is the Art of making and procuring Medicines by the Operations of *Chymiſtry*, or the Action of Fire on Natural Bodies, reſolving and reducing them to their ſimple conſtituent Parts, as *Spirits*, *Oils*, *Salts*, &c. But the *Galenical Pharmacy* is that which prepares Medicines, after the Method of *Galen*, in a more groſs Manner from the whole Subſtance of Vegetables; and not only ſo, but alſo compounding the various Parts of the ſame Plant, and likewiſe of divers Plants together, to anſwer the Intentions of *Phyſic*. *Pharmacy defined.* *Chymical.* *Galenical.*

THE Buſineſs of making Medicines of the *Galenic* Kind is call'd *Pharmacopœia*, and he who actually performs it is call'd *Pharmacopœius*, or, vulgarly, an *Apothecary*: But he is alſo call'd *Pharmacopola*, from his ſelling or vending of Medicines. Moreover, the Weighing and Meaſuring out proper Quantities of Ingredients for a compound Medicine is call'd *Diſpenſation*; and a Book containing Rules directing ſuch Quantities is call'd a *Diſpenſatory*; as that of the *College*, *Quincy*, and others. Laſtly, thoſe *Simples* which are uſed in the *Shops*, and the compound Medicines made of them, are call'd *Officinal Simples* and *Compoſitions*. *Pharmacopœia, what.* *Pharmacopola* *Diſpenſatory.*

THE *WEIGHTS* which the Apothecary uſeth in making and compounding his Medicines, with the Characters by which they are repreſented in Preſcriptions and Books, are as follows: ℔, a *Pound*; ℥, an *Of the Weights uſed by the Apothecaries.*

℥, an *Ounce*; ʒ, a *Dram* or *Drachm*; ℈, a *Scruple*; gr. a *Grain*; ſs, *Half* of a thing; M, an *Handful*; P, a *Pugil*, one eighth Part of an Handful; P. Æ. *equal Quantities*; q. ſ. a *ſufficient Quantity*; S. A. *according to Art*; Cong. a *Gallon*; Cochl. a *Spoonful*. And in regard of *Numbering*, inſtead of *Figures* they uſe the *Numerical Letters*; as, i, ii, iii, iv, v, *&c.* for 1, 2, 3, 4, 5. Thus ℥i, ℥ii, ℥iii, *&c.* ſignifies 1, 2, 3, *Ounces*: And ℔ſs, or ℥ſs, is half a Pound, or half an Ounce.

Abbreviatures

AGAIN, in *Preſcriptions* to the Shop, ℞ ſignifies *Recipe*, or take; ā, *of each*; m. *Mix*; f. m. *make a Mixture*; f. *make*; h. m. *Medicinal Hours*; h. ſ. the *Hour of Sleep*, or *going to Bed*.

A Table of *Apothecaries* Weights is as follows.

Twenty Grains, gr. xx.	make	℈i. *One Scruple.*
Three Scruples, ℈iii.		ʒi. *One Drachm.*
Eight Drachms, ʒviii.		℥i. *One Ounce.*
Twelve Ounces, ℥xii.		℔i. *One Pound.*

Alſo one Cochl. or *Spoonful* is about ℥ſs, or half an Ounce; and one Cong. or *Gallon* is ℔viii, or eight Pounds.

Officinal Simples.

OFFICINAL SIMPLES are all the Parts or Subjects of the three Kingdoms of *Vegetables*, *Animals*, and *Minerals*, that are uſed in the Shops for making compound Medicines. Of theſe, *Vegetables* make the Subſtance of the *Galenical Pharmacy* which we here treat of; *Animals* and *Minerals* being referr'd to the *Chymical*. *Vegetable Simples* are diſtributed, by *Diſpenſatory Writers*, into *Herbs*, *Flowers*, *Barks*, *Roots*, and *Seeds*; to which may be added the ſeveral *Gums* or inſpiſſated Juices of ſome Plants.

Rules to be obſerv'd concerning Herbs,

CONCERNING the *Gathering* and *Preſervation* of theſe *Simples*, it is requiſite to obſerve the following Rules or Maxims. As concerning *Herbs*: (1.) They are of the greateſt Virtue when beginning to flower, and therefore ſhould be then gather'd. (2.) They ſhould be gather'd when they are perfectly free from *Rain* or *Dew*, or they will turn black in drying. (3.) They ought to be dried in the *Shade*, for too great Heat exhales their Moiſture, and diminiſhes their beautiful *Verdure*, &c. (4.) The freſher they are brought into Uſe the better; though ſome may be kept much longer than others. (5.) So long as the

freſh

freſh Colour they are dry'd with continues, they may be eſteem'd good in Medicine, but no longer. (6.) They are much better for *Decoction* and *Diſtillation* when *dried* than *green*; becauſe their *ſaline* and *volatile* Parts will not well mix with a *Menſtruum*, till their native *Phlegm* or *Water* be evaporated.

and Flowers.

Concerning *Flowers*, obſerve (1.) That they alſo be gather'd dry. (2.) They ſhould be gather'd when they are full blown, unleſs ſuch as are order'd to be uſed in the Bud; as *Red Roſes* for *Conſerves*, &c. (3.) They are better *dried* in the *Sun* than in the *Shade*; becauſe the *quicker* they *dry*, the better they preſerve their *Scent* and *Colour*. (4.) They muſt be carefully kept ſo as not to grow *muſty*, and the *cloſer* the *better*. (5.) If they ſeem to *give*, they muſt be expoſed again to the warm Sun; and two or three ſuch Airings will prevent that Fault for the future. (6.) They loſe in a great Meaſure their Virtues with their *Scent* and *Colour*, and therefore ſhould be kept no longer than theſe endure.

and Seeds.

Seeds ſhould be gather'd dry, and when ready to ſhed. *Fruits* are beſt when *full ripe*; unleſs ſuch whoſe Efficacy depends upon the Auſterity of their Juices; and ſuch *not quite ripe* are the better.

Roots.

Roots are beſt taken up in the Beginning of the *Spring*, for Reaſons obvious to all.

Barks.

Barks are the better for being freſh dried, tho' many will keep a long time without perceptible Decay; and the ſame holds true of Woods of all kinds.

Gums, &c.

Gums, and *inſpiſſated Juices*, are the better the freer they are from *Droſs* and *Mixture*; but are ſeldom fit for Uſe.

Of the various Medicines in Pharmacy.

Of theſe *Simples* are made and compounded the various *Officinal Medicines*, or thoſe that ſtand ready prepar'd for Uſe in the *Apothecary*'s Shop. Of theſe there are *ſeveral Kinds*, under *various Forms*, and made in *different Manners*. As (1.) *Waters*. (2.) *Spirits*. (3.) *Oils*. (4.) *Decoctions*. (5.) *Infuſions*. (6.) *Syrups*. (7.) *Honeys*. (8.) *Juices*. (9.) *Wines*. (10.) *Tinctures*. (11.) *Elixirs*. (12.) *Conſerves*. (13.) *Sugars*. (14.) *Confections*. (15.) *Electuaries*. (16.) *Troches*. (17.) *Pills*. (18.) *Powders*, or *Species*. (19.) *Balſams*. (20.) *Ointments* or *Unguents*. (21.) *Cerates*. (22.) *Plaiſters*: With ſome other Forms;

besides those of Extemporaneous Prescription in all which I shall treat of in Order, shewing their Nature, and the Manner of making them.

Of Officinal Waters.

OFFICINAL WATERS are of two Sorts, *Simple* or *Small*, and *Compound* or *Strong Waters*.

Simple Water, what.

Simple Water is that which is drawn from any particular Sort of Plant by itself by a *Cold Still*. It is design'd to draw out the Virtues of any *Herb, Flower, Seed, Root*, &c. which may be more conveniently given in that Form than any other. They answer but very slight Purposes in Medicine, being able to affect no Parts but the Nerves and Animal Spirits: And consequently none are of Value but those which are drawn from the *Aromatic Glass* of *Vegetables*, or which yield a notable *Scent* or *Taste*; and even these Waters are seldom used but as *Vehicles* to Things of greater Virtue.

How made.

SIMPLE WATERS are thus made: *Take a proper Quantity of the proposed Vegetable, fresh gather'd, and whole, and commit it pure and without Mixture to the* Cold Still, *where it is to be kept for about three in a mild and gentle Heat, not exceeding that of the Summer's Sun, by means of a soft, well-regulated Fire; which forcing off the Vapours or most volatile Part of the Plant, is condensed by the large Pewter Head, and trickles down the Sides thereof into a proper Vessel placed at the End of the* Rostrum *to receive it.*

Compound Water, what, and how made.

COMPOUND or STRONG WATERS are such as are drawn from a *Composition* or *Mixture* of *Vegetable Substances*, infused in Spirits, and drawn off with an *Alembic*. I shall give an Example in making the *compound Bryony Water*.

Take Juice of Bryony Roots ℔vi. *Leaves of Rue, Mugwort*, ā ℔ii. *Savin* m. iii. *Feverfew, Calamint, Pennyroyal*, ā m. ii. *Basil, Dittany of Crete*, ā m. is. *Orange Peels* ℥iv. *Myrrh* ℥ii. *Castor* ℥i. *Infuse all in Spirits of Wine* ℔viii. *and after proper Maceration, raise a moderate and regular Fire to draw it off.*

Distilled Spirits.

DISTILL'D SPIRITS differ little in the Manner of making from the *Compound Waters*, and indeed are nearly allied in their Natures also; as will appear from the following Example of the *Spirit of Castor*.

Take

Take the best Ruſſia Caſtor ʒiv. *Flowers of Lavender* ʒiii. *Sage, Rosemary,* ā ʒiſs. *Cinnamon* ʒvi. *Mace and Cloves* ā ʒii. *Spirit of Wine* ℔ii. *Digeſt and draw off the Spirit in a Retort with a Sand Heat.*

Of Oils. OILS there are ſeveral Sorts, as may be ſeen in the Chapter of *Chymiſtry*. I ſhall only here take notice, that the *Officinal Pharmacy* hath to do only with Simple and compound Oils, either by *Expreſſion*, or by *Decoction* and *Infuſion*. *Simple Oils* by *Expreſſion* are obtain'd from the moſt *oily Parts* of *Vegetables*, which are *dryed*, to the intent that as much of their *Acid* and *Water* may fly off as poſſibly can, and then the Remainder is well bruiſed and put to a ſtrong *Preſs*, that being worked forces out the *Oil*. Thus the *Oil* of *Sweet Almonds* is expreſs'd from the Kernels; and thus *Oils* are to be made from the Kernels of moſt Fruit. *Oils by Infuſion* are made by taking a Quantity of the proper Parts of the propoſed Vegetable and bruiſing the ſame; it is ſet to macerate in a Quantity of ſome ſort of *Oil* for the Space of a Week, then it is ſimmer'd in a *Bath Heat*, and the Oil preſs'd out; after which the Vegetable is put into it afreſh, and managed in the ſame Manner as before; and the Operation repeated a third time. The Compoſition is to ſtand about 20 Days, and then the Oil is ſet by for Uſe, without preſſing out the Plant.

Compound Oils. In making *Compound Oils*, there are taken ſeveral Sorts of Herbs, &c. of a like Quality, which are to be macerated together in *Wine* and *Oil* for ſome Days, and then boil'd over a gentle Fire, till the Wine is evaporated, and then the Oil is ſtrain'd off, and kept for Uſe. For Example, take the *Compound Oil of Coſtus*.

Take of the Bitter Coſtus Roots ʒii. *of Caſſia Wood* ʒi. *Tops of Marjoram* ʒviii. *groſsly bruiſe them together, and macerate them for two Days in* ʒxii. *of aromatic White-Wine, and then with* ℔ii. *of Olive Oil waſh'd in White-Wine, let them be boil'd to the Conſumption of the Wine* S. A. *then let the Oil be ſtrain'd off for Uſe.*

Infuſion. *INFUSION* is that Part of *Pharmacy* whereby the Virtues of *Plants*, *Roots*, *Flowers*, &c. are drawn out by letting them *ſteep* only in ſome convenient *Menſtruum*;

Menſtruum; and this is concern'd in Bodies of a laxer Texture than thoſe which require the next Operation of *Decoction*, and whoſe Parts are ſo *light* as not to admit of a greater Motion without Danger of flying away in Vapour. Take for an Example the *Infuſion of Senna*.

Take of Alexandrian Senna ʒiſs. *of the Leſſer Cardamom Seeds* ʒii. *Salt of Tartar* ʒiii. *pour upon them* lbi. *of boiling Water, and ſtrain out, when cold, for Uſe.*

Decoction. *DECOCTION* is that Proceſs by which the Virtues of *Vegetables* are drawn out in *Boiling* them over a gentle Fire in Water or ſome proper *Menſtruum*; and thus the *Decoction* or *Apozem* is more fully impregnated and ſaturated with thoſe Parts of the Subject that are more readily ſoluble in boiling Water. The cloſer, denſer, and heavier any Subject is, and the more *Oil* or *Reſin* it contains, the leſs it is fit for Decoction; and therefore ſuch require to be kept a good while in a State of *Digeſtion*, to prepare them for this Operation; wherein alſo they muſt be the longer detain'd before they will give out their Oil. For Example, take the Form of the *Common Decoction for Clyſters*.

Take of the Leaves of Mallows, Violets, Pellitory of the Wall, Beets and Mercury, ā. m. i. *of Camomile Flowers* P. ii. *of Sweet Fennel Seed* ʒiſs. *of Linſeed* ʒii. *and boil in a ſufficient Quantity of Water to yield a Pint when ſtrain'd.*

Of Syrups. *SYRUPS* are Forms of Medicines well known, being the *Juices, Decoctions*, &c. of *Herbs* and *Drugs boil'd* up with *Sugar* to a proper Conſiſtence; and therefore nothing ſhould be brought into this Form but what is conveniently drawn out by *Decoction*, as an *aqueous Menſtruum*, or the *expreſs'd* Juices of Plants, Fruits, &c. for any *volatile* or *ſpirituous Subſtances* will either be loſt in making, or not long continue in the Compoſition. The more, likewiſe, any thing is diſpoſed to *Fermentation*, the leſs it is fit for this Form; and therefore the Juices of Fruit ſooneſt decay in *Syrups*. Such *Ingredients* therefore, whoſe Virtues conſiſt in their moſt *ſolid, permanent, ſaline*, and *terreſtrial Parts*, and ſo may be drawn out by an *Aqueous Medium*, are the only Subjects of this Claſs or Form of Medicines. And of ſo ſmall Conſequence is any

Syrup,

Syrup, that their chiefeſt Uſe and Efficacy is that of *ſweetning Juleps*; and even for that Intention *plain Sugar* has got the Preference in the preſent more honeſt Practice. Here follows an Example of making the *Syrup of Citron-Peels*. *How made.*

Take the outer yellow Citron-Peels full ripe and freſh ℥v. *Kermes Berries, or the imported Juice thereof* ʒii. *Spring Water* ℔iii. *ſteep them together all Night in a Bath-Heat, and to the ſtrain'd Liquor put* ℔iiſs. *of fine Sugar, and with a moderate Heat boil up to the Conſiſtence of a Syrup.*

After this Manner are prepar'd Syrups from the Peels of *Oranges*, *Lemons*, &c.

HONEYS are made either by mixing the *Flowers* of a Plant with *Honey* clarified, or elſe by boiling the *Juice* of the *Plant* and *Honey* together to a due Conſiſtence. *Of Honeys.*

There is a Form call'd a *Rob* or *Sapa*, which is when a *Decoction* of the Juices of Plants and Sugar is evaporated till one half is conſumed: But if the ſaid *Decoction* be exhal'd away to a *third Part*, the Remainder is call'd *Defurtum*. When it is evaporated to that Conſiſtence that a Drop let fall on a cold Marble will there congeal ſo as to tremble when it is touch'd, or ſhook, it is call'd a *Jelly*; though this Word be ſometimes applied to the freſh *Juices* of *Fruits* and *Plants*, and to ſome *Broths* of *animal Subſtances*. Laſtly, when a *Decoction* is ſo far exhal'd away, that it acquires the Conſiſtence of ſtiff *Honey*, or will not ſtick to the Fingers when cold, 'tis call'd an *Extract*; and this is of two Sorts, *viz.* the *Aqueous* and the *Reſinous*; the firſt being made with *Water*, the other with *Spirits of Wine*; but both of them are *ſaline*, *fat*, *bitter Subſtances*, and always appear of a very *black Colour*. *Rob or Sapa.* *Defurtum.* *Jelly.* *Extract.*

THE *INSPISSATED JUICES* of *Plants* are made by bruiſing the Plants when young and freſh, and expreſſing their *Juices*, which are to be boiled and exhaled to a due Conſiſtence. *Inſpiſſated Juices.*

MEDICATED WINES are made by only infuſing or digeſting proper Subjects in common Wine, as may appear by this Example of the *Steel Wine*. *Medicated Wines.*

Take Filings of Steel ʒi. *Saffron in Powder* ʒii. *Mountain Wine* ℔i. *let them ſtand in Infuſion three Days, frequently ſhaking them, and then filter and keep for Uſe.*

TINC-

Tinctures. *TINCTURES*, in like manner, are made by Digestion of Ingredients in strong Liquors or Spirits; which being saturated with the Virtues thereof are strain'd or drawn off by a gentle Heat. As for Instance, in the *Tincture of Rhubarb*:

Take of Rhubarb ℥ls. *of the lesser Cardamom Seeds and Saffron* a ℥ii. *of Liquorise Roots* ℥ls. *of* French *Brandy* lbi. *digest them eight or ten Days, and decant off the Tincture for Use.*

Elixirs. An *ELIXIR* is a Form of Medicine made by strong Infusion, where the Ingredients are almost dissolved in the *Menstruum*, and give it a thicker Consistence than a Tincture. This Form shall be exemplified in the *Elixir of Life*, as follows.

Take Nutmegs, Mace, Cinnamon a ℥i. *Cloves* ℥ls. *the outer Rinds of Oranges and Citrons* a ℥iii. *Saffron* ℥ii. *digest all together in a Sand-Heat in* lbiii. *of rectified Spirits of Wine for some Days; and pour off the clear Part for Use.*

Conserves. *CONSERVES* are a well-known Composition in the Shops; it is a Form contriv'd to keep and preserve the *Herbs*, *Flowers*, *Peels*, *Roots*, or *Fruits*, of *Vegetable Simples* as near as possible to what they were when fresh gather'd; and this is done by beating them up in a Marble Mortar with *triple* the Quantity of *Loaf Sugar*, till the Particles of the *Simples* are so blended with the Sugar, that they can't be distinctly discerned. But for those Simples which are less *moist* or *succulent*, a double Quantity of Sugar will do; and for some *Fruit*, and their *Pulps*, yet less will serve. These, like *Syrups*, answer no more important Intentions than *mixing* with, and *rendering palatable* other things of real *Efficacy*.

Sugars. *SUGARS*, rather a Part of the *Confectioner*'s than *Apothecary*'s Art, are either *Simple* or *Compound*. *Simple Lozenge Sugar* is made by pouring Sugar which has been sufficiently boil'd with half its Quantity of Damask Rose Water, on a Marble; and there, when cold, cut into *Tablets* or *Lozenges*. *Compound Lozenge Sugar* is made by mixing a *Composition* of *Ingredients* in *Species* with the Sugar, which is brought to a proper Consistence, and made into *Tablets*, as before.

Confections. A *CONFECTION* is a sort of Medicine compounded with dry Ingredients of many Kinds, which are proper to be given in Substance, being mix'd and made

made into a Consistence that will not presently run, with *Honey* or *Syrup*. Thus for Example the *Confection* of *Kermes* is made.

Take the best Scented Rose Water ℔ii. *the Juice of Kermes Berries* ℔iii. *of the whitest Sugar* ℔i. *boil them almost to the Consistence of Honey; and then stir in the Powders of the best Cinnamon and Aloes Wood*, a ℥vi. *and make them into a Confection*, S. A.

Tinctures.

Electuaries.

AN *ELECTUARY* is little different from a *Confection*, being made of *Conserves*, *Powders*, *Species*, &c. into the Consistence of *Honey*, or the *Pap* of a roasted *Apple*, to be made into *Boles* upon occasion. When this Form of Medicine is *too thin*, it is apt to *ferment*; and when *too thick*, it is apt to *candy*; and both these Inconveniencies alter and impair the Virtues of the Ingredients; and therefore 'tis a little to be wonder'd at that *Confections* or *Electuaries* should be so much in Use, while other Forms infinitely superior in all respects lie neglected, or unthought of, says a learned and judicious Author. Take an Example of the Form in the Compolition of the *Pectoral Electuary*, as follows.

Take the Juice of Liquorise and of Sweet Almonds a ℥ss. *of Pine Leaves* ℥i. *of Hyssop, Maiden Hair*, Florentine *Orrice, Nettle Seeds, and round Birth-Wort*, a ℥ss. *Seeds of Cresses, and Elicampane-Root*, a ℥ss. *of Honey* ℥xiv. *and make them into an Electuary.*

Troches or Lozenges.

TROCHES or *LOZENGES* are a Form of Medicine not so much in Use in the modern as in the antient Practice. It seems design'd to preserve in readiness for present Use, Substances which stood in need of some Preparation, in powdering, *&c.* and which by lying in dry Powder would likewise be subject to decay sooner than in this Form. The Compolition consists in various Ingredients reduced to Powder, and worked up into a *Paste* with Mucilages or other viscous Substances, which is roll'd out thin like a *Pancake*, and then with a proper Instrument it is cut out into *Troches* or *Lozenges*; which are to be held and dissolv'd in the Mouth to answer the Intentions of *Balsamics* and *Pectorals*. The Method of making the *White Troches of Rhases* is thus exemplified.

Take

Take of Ceruſs waſhed with Roſe-Water ʒx. *of Sarcocolla* ʒiii. *of Starch* ʒii. *of Gum-Arabic and Tragacanth* ā ʒi. *of Camphire* ʒſs. *and make them into a Paſte with Roſe-Water, to be cut into Troches.*

Pills. *PILLS* are a Compoſition of divers Ingredients reduc'd to Powder, and made into a hard *Paſte* or *Maſs*, with a Quantity of Syrup; and is of that *ſpecial Conſiſtence*, that when, on any Occaſion, a ſmall Part of it be taken and work'd up into a ſmall round *Ball* or *Pill*, it ſhall be able to retain that Form and Conſiſtence without Alteration. This Compoſition in the Shops contains now but little beſides what is of a *Cathartic Intention*; *Alteratives* requiring more room than here is allow'd for a Doſe, which is generally five or ſix Pills, whereas they would require fifteen or twenty for a Doſe. Nothing ſhould enter this Form that is *ſolvable* in Air, as ſome Salts; or apt to *ferment*, as *Volatile Salts*, &c. You have a proper Example of making this kind of Medicine in the *Greater Pill Cochiæ*, as below.

Take of Hiera-Picra ʒx. *of the Troches of Alhandal* ʒiiiſs. *of Diagrydium* ʒiiſs. *of the moſt reſinous Turpeth* ʒv. *and make them into a Conſiſtence fit for Pills, with a ſufficient Quantity of Syrup of Buckthorn*, S. A.

Powders. *POWDERS* or (in ſome Caſes call'd) *Species*, are well enough known without Deſcription. 'Tis true that *Powders* and *Species* did originally ſignify different Things; for *Powders* were a Compoſition of divers Ingredients reduced to that Form; but *Species* was a Word appropriated to thoſe *ſimple Ingredients* out of which others more compounded were made; and even now Cuſtom has, without any juſt Propriety, affix'd it to ſome *Aromatic* and *Cathartic Powders*, which are Compoſitions of various Things; as *Species Diambræ*, &c. *Drugs* and *Simples* are reduced to Powder by a twofold Operation, *viz. Pulverization*, which is a *beating* and *pounding* of dry Ingredients together in a Mortar, till they are entirely reduced to a *Duſt* or fine *Powder*. And Secondly, *Levigation*, which is a grinding, hard, ponderous, brittle Subſtances, as *Coral*, *Tutty*, *precious Stones*, *Shells*, &c. upon a *Marble Stone* with a *Muller*, till they are thereby reduc'd to a *light ſubtil Powder*, when dry. But the

Pulverization

Levigation.

the grinding Instruments had need be very hard, or else they will so far wear away as to make no inconsiderable Part of the Medicine themselves. Into this Form many Materials are reduc'd which are intended to be given in Substance; and therefore they should be clean, dry, well pick'd, and in the greatest Perfection in all respects.

BALSAMS are either *Native* or *Factitious*; the *Native Balsam* is an Humour or Juice exuding from some Sort of *Foreign Trees*, as the *Opobalsamum* in *Africa*, and others of *Tolu*, *Peru*, &c. *Factitious Balsams* are those Compositions in the Shops which are made of the *native* or *simple Balsams*, together with several other Things of a *cognate* Nature; and sometimes it is applied to Liquors drawn from *Gums* and *resinous* Substances by the Help of a *vinous* Spirit: But by *Balsams* are most commonly understood those *Officinal Forms* of Medicines as are of a thick, odoriferous, oily and penetrating Substance, and of a Consistence thicker than *Oil*, and thinner than that of an *Ointment*. I shall instance in making the *Apoplectic Balsam*, which is thus: *Balsams.*

Take the distill'd Oil of Cinnamon, Cloves, Lavender, Lemons, Marjoram, Mint, Rue, Rosemary, Sage, Rhodium, and Wormwood, ā gut. xii. *Amber* gut. vi. *Bitumen Judaicum* ʒii. *Oil of Nutmegs by Expression* ʒi. *Balsam of* Peru q. s. *to make all together into a smooth Balsam.*

OINTMENTS or *UNGUENTS* are a Form and Composition of Medicine well known: Its Use is wholly in external Applications; and the manner of making it is by boiling up divers Drugs or Simples with Wax, Oil, Lard, Butter, or some such *unctuous* and *cohesive* Substances, to a proper Consistence, which is that that is capable of being easily spread, bath'd, or rubb'd on a Part without running off in a liquid Form; or it is the next Degree of Consistence above a *Balsam*, or the densest Liquid. The Manner of composing a Medicine in this Form, I shall exemplify in the Prescription for an excellent *Opthalmic Ointment*. *Ointments.*

Take of Tutty and Calamine ā ʒvi. *of calcin'd Lead and Camphire* ā ʒii. *of Myrrh, Sarcocolla, White Vitriol, and Aloes*, ā ʒi. *pulverize the whole, and then take of fresh Butter* ʒvii. *White Wax* ʒii.

and melt thoſe together; then by degrees ſhake in the forementioned Powder, and ſtir all together till the whole is cold and becomes an Ointment.

Cerates. A *CERATE* is a Conſiſtence in the next Degree denſer than an *Unguent*, and thinner than a *Plaiſter*: It is thus denominated from the principal Ingredient in the Compoſition, *viz.* Wax, which in Latin is call'd *Cera*; for Wax, Oil, and ſome other ſofter Subſtances, diſſolved or mixed together, make a *Cerate*, as appears from the Compoſition of the *White Cerate* of the Shops, which is this:

Take of the whiteſt Wax ℥iv. *of Oil of Sweet-Almonds* ℥v. *of the fineſt Sperma Ceti* ℥i. *of Ceruſs waſh'd in Roſe Water* ℥ſs. *of Camphire* ʒſs. *make them into a* Cerate.

Plaiſters. A *PLAISTER* is a Compoſition of Oils, Waxes, Reſins, Powders, *&c.* in ſuch Conſiſtence as will keep its Form without running or ſticking to any thing when cold, but yet is moiſt enough to be melted and ſpread, ſo as to adhere when warm, and not be brittle enough to crack or break off what it is ſpread upon. But this is a Form ſo well known, that any Deſcription is ſuperfluous, and therefore I ſhall only give an Example of its Compoſition in the *Ammoniac Plaiſter*.

Take of ſtrain'd Gum Ammoniacum ℥vi. *of Yellow Wax and Reſin* ā ℥v. *of the ſimple Melilot Plaiſter, Ointment of Marſhmallows, of the Oil of Bays, and Orrice, and Venice Turpentine,* ā ℥ſs. *of Gooſe Fat* ℥i. *of Sal Ammoniac, of Bryony Root, and the Root of Orrice,* ā ʒſs. *of Galbanum and Bdellium* ā ʒii. *Let them boil together till it becomes of a due Conſiſtence for a Plaiſter.*

To the foregoing may be added the following anomalous Forms, *viz.*

Potential Cautery. THE *POTENTIAL CAUTERY*; this is made of a ſtrong Lixivium of Pot-Aſhes and Quick-Lime boild to a Drineſs: It muſt be kept cloſe ſtop'd in a Bottle, elſe it will imbibe the Air, and loſe its cauſtic Quality: Its Uſe is declared in the *Pharmaceutic Part* of *Surgery*.

Elaterium. *ELATERIUM*; it is the *Fæcula*, i. e. the Settlings of the Juice of Wild Cucumbers dry'd. It is a violent *Cathartic*, and ſeldom preſcrib'd but in ſtubborn and deſperate Caſes.

LAPIS

LAPIS INFERNALIS, or the *Infernal Stone*; the Compoſition of which is as follows: *Infernal Stone.*

Take Capital, i. e. *the ſtrongeſt Soap-Lees, any Quantity, and evaporate to a Dryneſs, and keep the Reſidue in a Glaſs well ſtop'd.*

LAPIS de GOA, or the *Goa Stone*. The Preſcription for making which is thus: *Lapis de Goa.*

Take Hyacinths, Topaz, Sapphires, Rubies, and Pearls, ā ℈i. Emeralds ℈ſs. Oriental Bezoar, White and Red Coral, ā ℈ii. Muſk and Ambergreaſe ā ℈ſs. Leaves of Gold N° xl. Let all be levigated into a fine impalpable Powder, and with Roſe-Water made into a Paſte, which is to be form'd into long or oval Balls, and poliſhed.

BESIDES theſe *Officinal Compoſitions*, there ariſe ſeveral other Forms of Medicine from *Extemporaneous* Preſcription and Practice, according to the various Exigencies and Circumſtances which attend the ſeveral Caſes and Intentions of Cure. The principal whereof here follow.

MEDICATED Wines, Ales, Meads, Wheys, *&c.* which all come under the general Denomination of *Diet-Drinks*, ſtand firſt in Order, and are in all chronical Caſes, and where the Diſorder of a Conſtitution is gradually to be gain'd upon, of very great Service. The making of theſe Wines, Ales, *&c.* is by taking a due Proportion of Medicinal Drugs and Simples, and hanging in a Bag in common Liquors. Thus, for Inſtance, to make that famous Diet-Drink call'd Dr. *Butler's* Ale, *Diet-Drinks.*

Take Betony, Sage, Agrimony, Garden Scurvy-graſs, Roman Wormwood, ā m. iii. Roots of Elicampane and Horſe-radiſh ā ℥iv. Mix and put them into a Bag, and hang it in cong. iv. *of new Ale while it works.* N. B. *This is an admirable* Antiſcorbutic.

EMULSION is a liquid Form made by blanching and bruiſing oily *Seeds* and *Kernels* in a *Marble* Mortar with a *Wooden* Peſtle, and beat up into a Paſte: Then the Liquors order'd are to be put in by degrees, and beat up with the Maſs, that ſo the whole Pulp may be waſh'd out; and the Liquor ſqueez'd out and ſtrain'd, being of a milky Colour, is the Emulſion intended, and is generally of the Emollient Kind. Thus to make the *Cordial Emulſion*, *Emulſions.*

Take Plague and compound Piony Water ā ʒiv. *Citron Seeds* ʒſs. *to which, when made into an Emulſion and ſtrain'd, add Pearl Sugar* ʒiii. *and Oil of Nutmegs* gr. i.

Julepſ. *JULEP* is a Form made of Simple and Compound Water ſweeten'd, and ſerves principally as a *Vehicle* or *Diluter* to other Forms not ſo convenient to take alone. Thus for a *Diuretic Julep*,

Take Parſley-Water ʒiv. *White-Wine* ʒvi. *Oil of Tartar* per Deliquium ʒii. *Syrup of Marſh-mallows* ʒi. *and mix them for a Julep.*

Potions. *POTIONS* or *Draughts* are a Liquid Form of Medicine to be drank at once, or at one Draught. And thus ſeveral other Forms, as *Powders*, *Electuaries*, &c. which to ſome People are irkſome or loathſome in Subſtance, may yet be eaſily taken in a Potion or Draught, being diſſolved in any proper Water or Julep.

Linctus's. *LINCTUS'S* and *LAMBATIVES* are Forms thus call'd, as being to be *lick'd up* with the Tongue. Theſe made a wonderful Noiſe and Show in the ancient State of this oſtentatious and verboſe Art, but are now much reduced; nothing but *Pectorals*, and what is grateful to the Taſte, being reducible hereto.

Bolus's. *BOLUS*, or *Bole*, originally ſignifies a fat Earth, as the *Armenian Bole* or *Earth*, &c. but in Medicine it is applied to that extemporaneous Form of one Doſe, and of the Conſiſtence of an Electuary, too well known to want further Deſcription.

Gargariſms. *GARGARISMS* are a liquid Form of Medicine, made of Acids and Subaſtringents, to waſh the Mouth withal, in order to cool and cleanſe it from *Phlegm*, &c. Or elſe are ſmooth and mucilaginous, to ſoften and heal it when ſore and parched. Take an Example of a *Detergent Gargle*, thus:

Take Spring-Water ʒvi. *Roſe-Water* ʒii. *Syrup of Mulberries* ʒiſs. *Oil of Vitriol* gr. xv. *or* q. ſ. *to make it agreeably acid.*

Lotions. *LOTIONS* are, properly ſpeaking, thoſe Waſhings which are uſed for beautifying the Skin, and call'd *Coſmetics*; they are therefore made of ſuch Ingredients as anſwer the Intention of *repelling* Eruptions, Pimples, and all cutaneous *Foulneſſes*. The following is a very *repelling Lotion.*

Take

Take common White Vitriol ʒi. *Crude Alom* ʒii. *boil in* ʒxii. *of Spring-Water to* ʒviii. *Take off the Scum, and put it up for Uſe.*

COLLYRIUMS are a Form of Medicine ſuited to the Eyes, and are deſigned to cool and repel hot ſharp Humours; to which End therefore *Collyriums.*

Take Rhaſis's *White Troches* ʒi. *Roſe-Water* ʒii. *Or, Take Calamine levigated* ʒſs. *Roſe-Water* ʒii. *Or, Take Tutty levigated* ʒſs. *Roſe-Water* ʒii. *Or, Take White Vitriol and Sugar of Lead* ā gr. v. *Roſe-Water* ʒii. *With any of theſe waſh the Eyes at Diſcretion.*

EMBROCATION; this I have already declared the Nature and Uſe of, and ſhall here only ſubjoin an Example of its Compoſition. *Embrocations.*

Take Oil of Tartar per Deliquium ʒi. *Spirit of Sal Ammoniac* ʒii. *Spirit of Wine* ʒviii. *Mix for Uſe.*

FOMENTATIONS being already deſcribed, I ſhall here only give a *Recipe* for one againſt the Scurvy. *Fomentations.*

Take Ground-Pine and Henbane ā m. ii. Winter's *Cinnamon* ʒſs. *Horſe-radiſh Roots, and Earth Worms added at laſt* ā ʒii. *Boil in Lime Water* ℔iiii. *to* ℔ii. *and to the Straining add Spirit of Scurvygraſs* ʒii. *and Opium* ʒi.

LINIMENT; this is alſo deſcribed as to its Uſe. The Manner of its Compoſition you will ſee by the following Example of one for ſore Eyes. *Liniments.*

Take freſh Butter without any Salt ʒiv. *White Wax* ʒi. *Tutty prepar'd* ʒſs. *Camphire* ℈ii. *Make all into a Liniment.*

CATAPLASMS are made after the Manner of this following one againſt *Apoplexies* and Diſorders of the Head.

Take Powder of Cloves and Nutmegs ā ʒii. Guinea *Pepper* ʒſs. *Muſtard* ʒvi. *ſour Leaven* ʒiii. *Compound Spirit of Lavender* ʒſs. *and make into a ſmooth Poultice.* *Cataplaſms.*

PLAISTERS are alſo made by extemporaneous Preſcription in various Ways, and to anſwer divers Intentions; as the following *Hyſteric* Plaiſter. *Plaiſters.*

Take ſtrain'd Galbanum ʒſs. *Aſſa-Fœtida* ʒii. *Yellow Wax* ʒi. *Camphire* ʒſs. *Oil of Amber* gut. x. *Make them into a Plaiſter for the Navel.*

Glyſters. *GLYSTERS* conſiſt of Materials comporting with the Intention, whether *Cathartic*, *Emollient*, *Cordial*, *Reſtringent*, &c. as in the *Common Laxative Glyſter* following.

Take common Glyſter Decoction ℥x. *Honey of Mercury* ℥ii. *Common Salt* ℥ſs. *Oil of Camomile* ℥i. *Mix for a* Glyſter *to give milk-warm.*

Injections. *INJECTIONS* are made, in like manner, of a liquid Form, and according to the following Example of one for a *Gonorrhœa.*

Take Rhaſis's *White Troches* ʒiii. *Camphire* ℈i. *Diſſolve them in Spring-Water* ℥xii. *for an Injection, to be injected into the* Urethra *two or three times a day.*

Suppoſitories. *SUPPOSITORIES* are generally made with a Bit of the *Aloephangine Pill*, or the Extract of *Rudius*; and for Children they moſtly uſe *Violet Comfit*, ſold by the Confectioners. This being roll'd up in a convenient Bigneſs and Shape, is dipp'd in *Oil*, or rubb'd over with *Butter* to facilitate their Paſſage: And thus others are made of proper Materials for Parts and Purpoſes.

Frontals. *FRONTALS* are Forms of Medicine ſo call'd becauſe applied to the *Temples* and *Forehead* in violent hot beating Pains of the Head, and when the Eyes are afflicted with Rheums, *&c.* Thus for a *Cephalic Frontal*,

Take Roſe Cake, fry it in Vinegar, and ſprinkle it with Powder of Nutmegs, ʒi. *Zedoary* ℥ſs. *and Camphire* ℈ii. *This, when applied, is to be moiſten'd with Vinegar ſo often as it grows dry, till it has anſwer'd its End.*

Epithems. *EPITHEMS* are any outward Application, but chiefly thoſe of a *liquid Form*, like Fomentations, as may be ſeen by the following *Recipe* for an excellent *Cephalic Epithem.*

Take Hungary Water ℥vi. *Compound Spirit of Lavender, and Spirit of Saffron*, ā ʒii. *Apoplectic Balſam* ℈i. *Oil of Cloves* gut. x. *Mix and rub the Temples, Noſtrils*, &c. *therewith in ſwooning Fits and nervous Diſorders of the Head.*

Sternutatories *STERNUTATORIES* are all Things that, when applied to the *Noſtrils*, will excite *Sneezing*, as all Sorts of Snuffs; but in ſome particular Exigencies, ſome ſpecial *Sternutatory* may be neceſſary; and the

the following is preferable to all other Medicines to this Purpoſe.

Take Sal Volatile Oleoſ. ʒii. *Spirit of Lavender* gut. xx. *Damask Roſe Water, or Orange Flower Water,* ʒſs. *Mix for Uſe.*

SACCULUS, or *Bag*, is a Form ſometimes uſed in common Practice, and order'd in extemporaneous Preſcriptions. Theſe *Medicinal Bags* are fill'd with proper Simples, and applied to the affected Part ſometimes dry, and ſometimes dipped in hot ſpirituous Liquors, and applied as hot as can be born: They are alſo wore upon a Part very often for a conſiderable time, *&c.* The following is reckon'd very good for *weak* Stomachs. *Sacculus.*

Take dry'd Mint ʒſs. *Wormwood, Thyme, Red Roſe Water,* ā ʒii. *Balauſtines, Angelica Root, Caraway Seeds, Nutmegs, Mace, and Cloves,* ā ʒi. *Make all into a groſs Powder, put it into a Bag, and wear it on the Stomach for ſome time.*

SUFFIMENTS or *Fumes* having been already deſcrib'd as to their Nature and Manner of Uſe, it only remains that I here ſubjoin an Example of their Compoſition, which take in that which is preſcribed againſt the *Falling down of the Womb.* *Suffiments.*

Take Myrrh, Maſtich, Cinnamon, and Spikenard, ā ʒi. *Mint and Red Roſes* ā ʒii. *Zedoary and Pimento* ā ʒſs. *Make into a groſs Powder to burn upon a Chafingdiſh of Coals under a Chair with a Hole in it, over which the Patient is to ſit and receive the Fumes.*

A *NODULE* is only a few *Medicinal* Simples tied cloſe up in a little Piece of Silk, and ſuſpended in Juleps, Apozems, *&c.* and are often ſerviceable held under the Noſe; for which Cauſe they are often preſcribed, as in the following Manner: *Nodules.*

Take Species Diambræ ʒſs. *Oil of Cloves, Lavender, and Marjoram,* ā gut. iii. *Volatile Sal Ammoniac* ℈i. *Rub them together, and tie up in a Piece of Silk for Uſe.* N. B. *This held frequently under the Noſe, proves a very uſeful and grateful* Cephalic.

CUCUPHA is an ancient Form of quilting Spices into a *Cap* to be wore upon the Head in Diſorders of the Nerves and Head, but are now very rarely *Cucupha.*

preſcribed or uſed; tho' they may be uſeful on many Accounts.

Peſſary. A *PESSARY* is an oblong Form of Medicine to thruſt up into the *Uterus* upon ſome Exigencies; and one for promoting the *Menſes* may be made as here preſcribed.

Take Powder of Myrrh ʒii. *Savin Tops, Oil of Aniſeed,* ā ℈ſs. *with the Yolk of an Egg bring them into the Conſiſtence of an Unguent, which rub over Pieces of Gentian Root, form'd* S. A.

Turundæ. *TURUNDÆ*, or *Pellets* for the Tooth-Ach, are thus to be made:

Take Maſtich ℈i. *Camphire and Opium* ā gr. ii. *Oil of Origany* gut. i. *Make into a Pellet. Or, Take Frankincenſe and* Matthew's *Pill* ā gr. x. *Oil of Cloves* gut. i. *and make into a Pellet.*

THESE are the moſt uſual and conſiderable Forms of Medicine of the *Officinal* or *Extemporaneous* Kind now in Uſe. As for *Broths, Paſtes, Peas, Tents, Necklaces, Ptiſans, Poſſets*, &c. they are ſome of them well known, others frivolous and chimerical, and all of too little Moment to be mention'd here.

CHEMISTRY.

Of Chemiſtry. *CHYMISTRY*, or, as it ſhould be wrote, *Chemiſtry*, is an Art whereby ſenſible Bodies contain'd in Veſſels, are ſo changed by means of certain Inſtruments, and eſpecially *Fire*, that their ſeveral Parts of different Natures become diſunited or ſeparated, their ſeveral Powers and Virtues are thereby diſcovered, with a View to the Uſes of *Medicine, Natural Philoſophy*, and other Arts and Occaſions of Life.

Its Antiquity, *Chemiſtry* boaſts an Antiquity ſuperior to all other Arts, and equal to that of Fire itſelf, or, at leaſt, the Knowledge of its Uſe; *Egypt* being the Country which firſt produced it, and *Tubal-Cain* (the Heathen *Vulcan*) its Inventor.

and various Denominations. THIS Art in various Places, and by divers Perſons, has received many and different Denominations: As (1.) *Poietice*, the Art of *making* or *producing* Things, (*viz.* by Fire.) (2.) *Chryſopoieſis*, the Art of *making Gold*; and therefore, by way of *Pre-eminence*, the *Arabians* call'd it (3.) *Alchemy*, which has been ſince applied

plied to the Art of making Gold, and finding the *Philoſopher's Stone*; and they who profeſs this are call'd the *Adepti* or *Adepts*. (4.) The *Hyſſopic Art*, by *Paracelſus*, from *Pſal.* li. 7. (5.) The *Hermetic* Art from *Hermes Triſmegiſtus*, its ſuppoſed Inventor. (6.) The *Spagyric Art*, or the *Art of Extracting and Collecting*, viz. the Virtues of Things. (7.) *Pyrotechny*, or the *Art of Fire*, as being the principal Agent made uſe of; and *Chemiſts* are therefore call'd *Pyrotechniſts*. *Adepts.* *Pyrotechny.*

In this Art we ſhall juſt conſider (1.) The *Subjects*, which are all natural compounded Bodies, whether of the *Foſſil*, *Vegetable*, or *Animal Kind*. (2.) The *Operations*, as *Calcination*, *Sublimation*, &c. (3.) The *Inſtruments*; as *Fire*, *Water*, *Menſtruums*, various *Veſſels*, &c.

The *CHEMISTS* diſtribute the Subjects of their Art into three *Kinds*, which they call the *three Kingdoms*, viz. The *Foſſil* Kingdom, the *Vegetable* Kingdom, and the *Animal* Kingdom: And theſe three grand *Genera*, or Kinds of Bodies, comprehend all the leſſer and ſubordinate Species and Claſſes of Bodies of what Nature ſoever. *Three Kingdoms of Chemiſtry.*

The *FOSSIL KINGDOM* contains whatever is *dug up* out of the Bowels of the Earth; and all Bodies thus dug up are call'd *Foſſils* or *Minerals*. Theſe are of two ſorts, *Simple* and *Compound*. *Simple Foſſils* are ſuch whoſe Parts are all of the ſame Nature; and are of four Species. (1.) *Metals*, which are in number Six, *viz. Gold*, *Silver*, *Lead*, *Copper*, *Iron*, *Tin*; to which ſome add *Mercury* or *Quick-ſilver*. (2.) *Salts*, of which are the following Kinds: *Sea-Salt*; *Sal-Gem*, or *Rock-Salt*; *Nitre*, or *Salt-Petre*; *Sal-Ammoniac*; *Borax*; *Alum*; a vague Salt, or ſaline Acid. (3.) *Stones*, *Vulgar* and *Precious*. *Precious Stones*, call'd alſo *Gems* and *Jewels*, are either entirely *tranſparent*, as the *Diamond*, *Emerald*, &c. or elſe *Brilliant* or Shining, as the *Bohemian Granate*; or, laſtly, *Semi-tranſparent*, as *Oculus Cati*, *Opal*, &c. (4.) *Earths*, of which there are various ſorts; as Chalk, Clay, Marl, Sand, &c. *The Foſſil Kingdom.* *Simple Foſſils.*

COMPOUND FOSSILS are all thoſe whoſe Parts are diſſimilar, or heterogeneous, or may be divided into Parts of a different Nature; as *Antimony* may be reſolv'd into *Sulphur* and a *Metalline* Part. The chief Species of *compound Foſſils* are (1.) *Hard* *Compound Foſſils.*

Sulphurs, as *Brimſtone*, *Arſenic*, *Orpiment*, *Realgal*, *Bitumen*, *Aſphaltum*, &c. to which ſome add *Amber*, *Jet*, and *Ambergreaſe*. (2.) *Liquid Sulphurs*, as *Piſſaſphaltum* or *Jew's Pitch*, *Naptha*, *Petroleum* or Oil of Rock, &c. (3.) *Semi-Metals*, or kind of *half Metals*; as *Antimony*, *Cinnabar*, *Marcaſite*, *Biſmuth*, *Calamine*, *Cobalt*, *Pyrites*, *Vitriol*, *Magnet* or *Load-Stone*, with ſeveral other *Mineral Stones* and *Subſtances*.

The Vegetable Kingdom.

THE *VEGETABLE KINGDOM* ſupplies the *Chemiſts* with Bodies the moſt ſimple and reſoluble of all others. The Nature and Texture of vegetable Subſtances render them compleatly manageable by *Chemical Operations*; and therefore a good deal of this Part of *Chemiſtry* hath been introduced or practiſed with the *Galenical Pharmacy*, as appears by what goes before. The *Chemiſts* reſolve a *Plant*, or any vegetable Body, into the following Principles, *viz.* (1.) *Water* or Phlegm. (2.) A *Spirit*. (3.) *Salt*. (4.) An *Oil*, and (5.) An *Earth*, call'd *Caput Mortuum*. And each of theſe, more or leſs, from every Part, whether *Root*, *Stem*, *Leaves*, *Flowers*, *Fruits*, or *Seeds* of a Plant.

The Animal Kingdom.

THE *ANIMAL KINGDOM* comprehends all that Part of the Creation endued with *ſenſitive Life* and *ſpontaneous Motion*, that is, all Sorts of *Animals*. Every Part of an Animal alſo, whether *Bone*, *Fleſh*, *Hair*, *Horn*, *Shells*, *Humours*, as *Blood*, *Milk*, *Urine*, &c. are ſubject to the *Chemical Analyſis*: For the *Chemiſts* reduce any Animal Subſtance into the following component Principles, *viz.* (1.) A *Spirit*, being a ſulphurous oily Matter, volatile, and miſcible with Water. (2.) *Water*, even from the drieſt Bone. (3.) A *Salt*, but neither *Acid* nor *Alkaline*, *Fix'd* or *Volatile*, but a compound Sort. (4.) *Oil*, which is compounded of a Volatile Oil and Earth. (5.) *Earth*, a little more Volatile than that of Vegetables, and perfectly immutable.

Of Chemical Operations.

HAVING taken a ſhort View of the *Materia Chemica*, we now proceed to ſpeak of the principal Operations of the Art: For though the *Chemiſt* pretends to no more than a *Solution* or *Separation* of the Parts of natural Bodies, or elſe an *Union* or *Coagulation* of them, yet divers Methods or different Operations are requiſite to obtain either of thoſe Ends; the chief whereof are the following, *viz.* (1.) *Calcination*. (2.) *Filtra-*

Filtration. (3.) *Clarification.* (4.) *Diſtillation.* (5.) *Diſſolution.* (6.) *Fermentation.* (7.) *Digeſtion.* (8.) *Extraction.* (9.) *Cryſtallization.* (10.) *Incorporation.* (11.) *Sublimation.* (12.) *Precipitation.* (13.) *Cohobation.* (14.) *Amalgamation.* Of which in Order.

CALCINATION is ſuch a Management of Bodies by Fire, as brings them to a *Calx*, by forcing off all the Moiſture, in which State they are eaſily reducible to Powder, and is for that Reaſon term'd *Chemical Pulverization.* This Operation is ſeldom perform'd without *Melting* or *Fuſion*, being chiefly employ'd about *Metals* and *Salts:* For after thoſe hard Bodies are *fuſed* or *liquified* for a long time, the ſubtil Particles fly off, and the Fire is ſo intimately mix'd and blended through all their Subſtance, that the Fluidity can no longer ſubſiſt, but there is produced a third ſort of Body, very *brittle* and *porous*, and eaſily reduced to Powder. To *Calcination* belongs *Vitrification*, or turning Bodies, as *Flint*, &c. into *Glaſs*, or a Subſtance *pellucid* and *like* thereto. *Calcination.*

FILTRATION is a Method by which *Liquors* are render'd fine and clear; and is performed either by paſſing the Liquor through a *Paper*, which by reaſon of the Smallneſs of its Pores admits only the finer Parts through it; or elſe by laying a Cord or Piece of Cotton, *&c.* one Part *in the Liquor*, the other to hang over a Veſſel placed below the ſaid Liquor; for thro' this it will aſcend and drop over very fine, and clear from the foul and groſſer Parts. *Filtration.*

CLARIFICATION or *DEPURATION* is another way of purifying and improving ſome Medicines, as *Decoctions*, and other turbid Liquors, which is done by beating them up with the Whites of Eggs to a *Froth*, which upon boiling will entangle the groſſer Parts, and carry them up to the Top in a tough *Scum*, which then is to be taken off with a Spoon, or ſeparated by the *Hippocrates's Sleeve*, which is a thick flannel Bag. *Clarification.*

DISTILLATION is cauſing by Fire an Aſcent or Elevation of the Particles of Bodies in Form of *Vapour*, which afterwards are condenſed and deſcend in Form of *Drops*; and this is done by the *Retort* in a Sand Heat, by the *Alembic*, or by the *Cold* (or *Common*) *Still:* The Manner of which has been already hinted. *Diſtillation.*

DISSO-

Diſſolution. *DISSOLUTION* is the diſſolving of the natural Coheſion of the Particles of ſolid Bodies, by which Means they are ſet in *Motion*, and the Bodies are brought into a State of *Fluidity*. Thus Salts are diſſolved by various *Menſtruums*, as *Air*, *Water*, &c. Thus alſo Gold diſſolves in *Aqua Regia*, and Silver in *Aqua Fortis*. Laſtly, *Metals* will diſſolve in a *Saline Menſtruum*, and *Reſins* in a *ſulphurous* one.

Fermentation. *FERMENTATION* is a Term of a very lax and vague Idea, though in general nothing more than an *inteſtine Motion* cauſed in the Particles of Bodies by the Admixture of ſuch Matter as contains *ſubtil ſpirituous* Particles wrapped up in *viſcid* ones, is underſtood thereby: For the ſpirituous Particles being always upon an Endeavour to releaſe and extricate themſelves from the viſcid ones, will, till they obtain their Liberty, produce a *Commotion* in the *Medium* wherein it happens. Of *Fermentation* there are various Species, which are of different Uſes in the *Chemical Pharmacy*, and eſpecially the Fermentation of Vegetables and their Juices, whereby their Medicinal Efficacies are exalted by diſengaging and ſeparating the fineſt and moſt ſpirituous Parts thereof.

Digeſtion. *DIGESTION* is that Solution of Bodies as is made by *Menſtruums* by the Aſſiſtance of Fire, and differs in little elſe than the Fire from the common Diſſolution of Bodies before deſcribed. And indeed all kinds of *Solution* depend upon this general Principle, *viz.* That the Particles of the Body to be diſſolved be by Fire, or otherwiſe, ſo far attenuated that their *Specific Gravities* become leſs than that of the *Menſtruum*, or *Tenacity* and *Reſiſtance* thereof; for otherwiſe they could not be ſuſtained or ſuſpended therein, and mix'd therewith; but would ſink directly to the Bottom, and there conſolidate again.

Extraction. *EXTRACTION*, taken in its largeſt Senſe, ſignifies any *Solution* of Bodies made by *Menſtruums*, wherein not the whole Subſtances, but only certain Particles are carried off, or abſorb'd thereby. But what is properly call'd *Extraction*, and is *here* intended, is ſuch an *Inſpiſſation*, or thickening of a *Solution*, as when a certain Quantity of the *Menſtruum* is drawn off, the remaining Mixture is reduced to the Conſiſtence of Honey. But of this I have already ſpoken under the *Galenical Pharmacy*.

CRY-

CRYSTALLIZATION is the bringing of the Particles of Saline Subſtances into ſuch a State or Conſiſtence as to reſemble the Form of *Cryſtal*, but variouſly modified according to the Nature and Texture of the Salts. The Method is this; the *Saline Body* is diſſolved in Water, afterwards the Solution is filter'd, which being evaporated till a thin Film appear on the Surface, it ſpontaneouſly runs into *Cryſtal*. *Cryſtallization.*

INCORPORATION is a Proceſs which brings and joins together, by the Interpoſition of a *particular Body*, ſuch others, as in themſelves are incapable, or very difficult to be *mix'd* or *incorporated* together. Thus *Oils* and *Syrups* are incorporated in *Eclegma's* and *Linctus's*, by means of *Sugar*, *Salt*, or ſuch like Subſtances; thus a *Mixture* of *Turpentines*, *Balſams*, &c. with *aqueous* Liquors is effected by the Interpoſition of the Yolk of an Egg; and thus a Mixture of Metals is likewiſe produced by *Amalgamation*. *Incorporation.*

SUBLIMATION is the raiſing and elevating the *ſolid* and *dry* Parts of Bodies by means of Fire, in like manner as the *fluid* Parts are rais'd by *Diſtillation*. The Subjects of this Proceſs are all *volatile Bodies*, or ſuch which contain *volatile Parts*, as Salts of *Animal Subſtances*; thus the Salts of *Minerals* are ſublimed, and the Salts of *Vegetables*, as Salt of *Tartar*, &c. By this Method are obtain'd thoſe fine ſoft Subſtances call'd *Flowers*; as *Flowers* of *Sulphur*, *Antimony*, *Biſmuth*, &c. *Sublimation.*

PRECIPITATION is that Proceſs by which Particles of Bodies diſſolved and ſuſpended in a *Menſtruum* are *made to ſink* or fall to the Bottom thereof. The Particles ſometimes precipitate of their own accord, but oftener by the Aſſiſtance of ſome other Liquor added to the *Menſtruum*. As Bodies can't be ſuſtain'd, till they are render'd ſpecifically *lighter than the Menſtruum* in which they are diſſolv'd, ſo, on the contrary, if any *Menſtruum* be made lighter than the ſaid diſſolv'd Particles, 'tis plain they can't be ſuſtain'd or ſuſpended any longer, but muſt fall to the Bottom. This is the *Reaſon* of *Precipitation*, and is effected two ways, *viz.* by dropping into the *Menſtruum* a Liquor ſpecifically *lighter* or *heavier*; the firſt renders the *Menſtruum* lighter than before, and *Precipitation.*

and therefore unable any longer to ſuſpend the diſſolved Body; and the heavier Liquor, what with the *Weight* of its Particles, and the *Impetus* they acquire in their Deſcent, carry down and ſink all the ſolid Particles they meet with in their way. In the firſt Caſe, the Spirit of *Sal Ammoniac* will plentifully precipitate the Filings of Metals diſſolv'd in *acid Menſtruums*; and in the latter, *Water* alone will precipitate Tinctures of *Vegetables* extracted by *Spirit of Wine*.

Cohobation. *COHOBATION* is a Sort of *repeated Diſtillation*, or ſuch wherein the Liquor firſt drawn off, is (inſtead of freſh Water, *&c.*) again return'd upon the Subject to be drawn off a ſecond Time, which is again cohobated, or pour'd on the Subject in the Still, and ſo is continued or repeated ſeveral Times; the Intention of which is to open and ſeparate mix'd Bodies, to extract their Virtues more eſſentially, to volatilize Spirits, *&c.*

Amalgamation. *AMALGAMATION* is a Proceſs employ'd about Metals, and conſiſts in mixing Mercury with them when fuſed or melted, in order to fit them to be extended on ſome Works, as Gold; or elſe to reduce it to a very ſubtil Powder, by evaporating the Mercury. No Iron or Copper can by any means be *amalgamated*.

Of Chemical Inſtruments. THE *INSTRUMENTS* uſed in *Chemiſtry* are of three ſeveral Kinds, *viz.*

Elements. FIRST, the *ELEMENTS*; as (1.) *Fire*, on whoſe Agency all the Art depends, for 'tis by Fire the Particles of Bodies are forced apart, and put into Motion; as in *Diſtillation*, *Sublimation*, *Fuſion of Metals*, &c. (2.) *Water*, whoſe Uſe is general and well known in *Chemical Operations*. (3.) *Air*; this is conſider'd by *Chemiſts* as an almoſt univerſal Diſſolvent, and as ſuch properly belongs to the next Head. (4.) *Earth*, which is of various and frequent Uſe in this Art; as in *Lutings*, *Sand-Heats*, &c.

Menſtruums. SECONDLY, *MENSTRUUMS*; which are any Kind of *Diſſolvents*, or *Liquids*, which by ſteeping or digeſting Bodies in them, do by Degrees diſſolve or diſunite the Particles of thoſe Bodies, and ſo change them from a *ſolid* to a *fluid State*. And of this Sort of *Inſtruments* are *Air*, *Water*, *Spirit*, *Mercury*,

cury, and various others both *Natural* and *Chemical Preparations*, especially of the *Acid Tribe*.

THIRDLY, *VESSELS* or *Utensils* of divers Sorts; as *Furnaces* of several Forms and Kinds, *Alembics* and *Stills*, *Retorts*, *Receivers*, *Cucurbits*, *Matrasses*, *Crucibles*, *Lingots*, *Coppels*, *Aludels*, *Cranes*, &c. all which to describe here would answer but little Purpose; since a just Idea of their Forms and Uses is only to be obtain'd either by large Prints, or an actual View of them in the *Laboratories* of the *Chemists*. *Utensils.*

Of PHYSIC; *or the* THEORY *of* MEDICINE *and* DISEASES.

MEDICINE *or* PHYSIC *defined.*

MEDICINE, or, as it is commonly call'd, PHYSIC, conſiſts in the Knowledge of thoſe Things, by the Application of which the Health of Bodies is preſerved or reſtored, by removing Diſeaſes. The *Object* therefore of *Medicine* is the Life, Health, Diſeaſe, and Death of Mankind; the *Cauſes* whence they ariſe, and the *Means* by which they are governed.

Its Object.

Medicine divided into five Parts; Phyſiology, Pathology, Semeiotics, Hygieina, Therapeutics.

THIS Art is divided into five great Parts, *viz.* (1.) *Phyſiology*, in a ſtrict Senſe ſo call'd, which reſpects the *Nature* of the Human Body. (2.) *Pathology*, or the Doctrine of Diſeaſes. (3.) *Semeiotics*, which relates to the *Signs* and *Indications* of Diſeaſes. (4.) *Hygieina*, or that which preſcribes Rules for the Conſervation of *Life* and *Health*. (5.) *Therapeutics*, which treats of the *Materia Medica*, and Cure of Diſeaſes.

Of Phyſiology, and what it teaches.

PHYSIOLOGY, the firſt and moſt philoſophical Part of Medicine, explicates (1.) The Nature, Structure, and Parts of the Human Body, with their Uſe in the whole *Animal Oeconomy*. (2.) What *Life* is, and wherein it doth conſiſt. (3.) What the true Notion of *Sanity* or *Health* is: And, (4.) The various Effects of *Life* and *Health*, or a good State of the Animal Conſtitution: All which Particulars are call'd the *Res Naturales*, or Things according to Nature.

The Animal Structure and Oeconomy.

THE *Structure* or *Conſtitution* of the Human Body, and the Uſe of the Parts in its *Oeconomy*, hath been already explain'd in the Chapter of *Anatomy*, and is thence to be learn'd.

LIFE

LIFE is said to be *that Condition* of an *Animal Body*, which, both with reſpect to the *ſolid* and *fluid Parts*, is abſolutely requiſite, that there might ſubſiſt a mutual *Union* and *Commerce* between the *Body* and *Mind*, in ſome certain Manner; or which, when impair'd, may be ſome how reſtor'd without neceſſarily deſtroying the ſame. *Life, what.*

HEALTH or *Sanity* is that Affection of *Life* which ariſes from that due *Structure*, *Conformation*, *Temperament*, and *Oeconomy* of an *Animal Body*, whereby all the *Parts* thereof are in a proper Condition to exert all their *Natural Actions* and *Functions* of Life, with a requiſite Degree of *Facility*, *Delight*, and *Conſtancy*. Or, *Health* is a *right Exerciſe* of the *Actions* of the *Solids* and *Fluids* according to the *Laws* of *Nature*, whereby the *Circulation* of the *Blood* is maintained thro' the *minuteſt Arteries* without *Obſtruction*. And this *Diſpoſition* of the *Parts*, and the *Juſtneſs* of their *Actions*, which is the Foundation of *Health*, proceeds from, or is the *Effect* of what is call'd the *Equilibrium Naturæ*, or *Balance of Nature*; which is defined to be that *equal Temperature* of the *Solids* and *Fluids* wherein the *Blood* is capable of circulating freely; the ſeveral *Secretions* are made therefrom in the exacteſt Proportions, and the *Excrements* excern'd, by all the different *Emunctories*, without the leaſt Obſtruction. *Health.* *Whence it proceeds.*

THIS *BALANCE* of *NATURE* itſelf ariſes from that proper *Tone*, *Tenſity*, *Springineſs*, or *Contractile Power* of the *Fibres* of the *Solids*, as effects a due *Circulation*, *Liquidity*, and requiſite *Secretions* of the *Fluids*. While the *Body* enjoys this *even Standard State*, it is poſſeſs'd of the moſt deſirable Serenity, Eaſe, Pleaſure, and Chearfulneſs of Mind. But if the Conſtitution riſes above, or ſinks beneath this Balance of Nature, there will enſue Diſeaſes of two different Kinds, as will be deſcrib'd under the next general Head, unto which we are now come. *The Balance of Nature.*

PATHOLOGY, the ſecond great Part of *Phyſic*, treateth of *Diſeaſes*, and declareth (1.) What a Diſeaſe is, and the Nature thereof. (2.) The *Differences* of Diſeaſes. (3.) The *Cauſes* of Diſeaſes; and (4.) The *Effects* thereof. And in regard of this fourfold Diviſion it is ſaid to be *Pathological*, *Noſological*, *Ætiological*, and *Symptomatological*. *Of Pathology.*

PATHO-

Diſeaſe defined.

PATHOLOGICS expounds the *Nature* of *Diſeaſes*, and defines a *Diſeaſe* to be *that State* of a living Body which takes away the *Faculty* of *exerting* any of its *proper and neceſſary Actions*. Or, A *Diſeaſe* is the Effect of *that State* wherein the *Natural Actions* of the *Solids* and *Fluids* are *perverted* in their Motions, either above or below the *Balance* of *Nature*, which conſtitutes the *Standard* of *Health*.

THEREFORE as long as the *Solids* are deſtitute of their due *Tone* and *Vigour*, ſo long will the *Fluids* loſe their proper Degree of *Fluidity*, *Purity*, and *Direction* of *Motion*; ſo long will the Body conceive *Diſorder*, *Pain*, and *Diſquietude*; ſo long will the Faculties intermit their proper Springs for the Well-being of the Machine; ſo long will the Animal Oeconomy be diſturb'd and diſſolv'd in Confuſion; ſo long will Uneaſineſs and Pain afflict the Senſes, and Weakneſs, Languor, and Inactivity accrue to the Body; and a Perſon affected with this unhappy State, we call a *ſick* or *unhealthy Perſon*, and, if under a *Phyſician*'s Care, a *Patient*.

Noſologia, or Doctrine of Diſeaſes.

NOSOLOGIA diſtinguiſhes the ſeveral *Differences* of Diſeaſes, and thereby ranges them into Claſſes of divers Kinds. Diſeaſes are different on many Accounts; for (1.) They differ with reſpect to their *Cauſes*; and thus they are ſaid to be *Idiopathic*, or from a *proper Affection* of the Part; *Sympathetic*, which ariſe from the Affection of another Part; *Hereditary*, or which we derive from our Parents; *Connate*, or which we were born withal; *Acquired*, or which we have gotten accidentally, *&c.* (2.) In reſpect of the *Parts* of the *Body*, as the Diſeaſes of the *Fibres*, of the *Organs*, and of the different *Humours* or *Fluids*. (3.) In reſpect of the *Subject* or *Sex*; as the *Diſeaſes* of *Age*, of *Infants*, of *Children*, of *Youth*, of *Adults*, and of *old Folks*. And again, there are Diſeaſes proper to *Men*, to *Women*, to *Virgins*, to the *Pregnant*, to *Women in Labour*, to *Nurſes*, &c. both univerſal and particular. (4.) In reſpect of *Time*, *Diſeaſes* are ſaid to be *acute* or *chronical*; *acute* if they terminate within twenty Days; *very acute* if within ſeven Days; and *moſt acute* if within four: All the reſt are *chronical*. Again; they are ſaid to be *vernal* which happen properly in the *Spring*, *autumnal* if in *Autumn*; alſo

continual, *continent*, *intermittent*, &c. (5.) In regard of their *Nature* and *Effects*, they are ſaid to be *wholeſome*, *benign*, *malignant*, *curable*, *incurable*, *deadly* or *mortal*, &c. (6.) With reſpect to the Manner of Propagation, they are ſaid to be *contagious* when caught by *Infection*, *epidemical* when the *Infection* is univerſal, and the *Contagion* ſpreads over the Land, City, &c. *endemical* when it is proper to the *Inhabitants* of any particular Country.

The States of a Diſeaſe.

A *DISEASE* is alſo conſider'd with reſpect to the ſeveral *States* or *Periods* it paſſes thro' from firſt to laſt; and they are as follow: (1.) *Arche*, or the *Beginning* of the Diſeaſe. (2.) *Anabaſis*, or the *Growth*, *Increaſe*, or *Progreſs* thereof. (3.) *Acme*, or the *State* or *Height* of the Diſorder. (4.) *Paracme*, or *Decreaſe* or *Declenſion* of the Diſeaſe. (5.) The *End* or final *Removal* thereof.

In all intermitting Diſorders, as *Agues*, *Fevers*, &c. the Acceſs or Coming-on of a *Fit* is call'd a *Paroxiſm* of the Diſeaſe, or an *Exacerbation* or growing worſe. In *acute* Diſeaſes, which conſiſt in the Humours, the Matter of the Diſtemper is, for the moſt part, at a certain Time ſo diſpoſed, that there is a ſudden *Change* or *Mutation* of the Diſeaſe to *better* or *worſe*, to *Health* or *Death*; which *Alteration* is call'd the *Criſis* of the Diſeaſe, and the Matter ſo diſpoſed the *critical Matter* thereof.

Of Ætiology.

ÆTIOLOGY is that Part of *Pathology* which treats of the *Cauſes* of Diſeaſes. The *Cauſe* of a Diſeaſe is any thing which occaſions in us a *Senſation* of *Pain* or *Sickneſs*, whether it be by producing a *new* and *morbific* State of the *Solids* and *Fluids*, or by *taking away* any thing *abſolutely requiſite* to the *Exerciſe of the Functions*.

Cauſes of Diſeaſes.

The *CAUSES* of Diſeaſes are generally divided into (1.) *Internal*, when it was pre-exiſting in the Body before the *Effect* was produced or did appear: Theſe firſt diſaffect the *Humours*, then the *ſolid Parts*. (2.) *External*, which exiſts without the Body, and afterward applied thereto, breeds a *Diſeaſe*: Theſe generally hurt the *Solids* firſt, and then the *Humours*. (3.) *Remote*, which is not wholly ſufficient of itſelf for producing of a Diſeaſe, but only ſo alters the Body as renders it *apt* and *ſuſceptible* thereof, in caſe any other Cauſe ſhould occur and join its baneful In-

fluence. Both these together make the (4.) *Proximate Cause of a Disease*, which is no other than that whole Cause which gives Being to, and by its Presence continues the present Disease, and which being removed, the Distemper will instantly cease.

The primary or general Cause.

But the *immediate*, *primary*, and most *general Cause* or *Spring* of all Diseases, whether *acute*, *chronical*, or *complicated*, results from the *Elevation* or *Depression* of the *Tone* of the *Vessels*, and the *Motion* of their *Fluids* above or beneath the *Balance* of *Nature*; and the several Degrees thereof produce the several Degrees of Diseases: For too great a Contraction of the Vessels will increase the Division of the Blood, which again will increase the *Motion*, *Quantity*, and *Heat* of the Blood; whence *Fevers* of several Kinds arise, and many other Disorders.

The Remote Cause.

The *Remote Cause*, inherent in the Body, is call'd the *Proegumenical* or *pre-disposing Cause*; and such is a *vitiated Temperament* in regard of Heat or Cold, a *Plethora*, and *Cacochymia*, or *ill State* of the *Fluids*. The Cause which is *accessory* to this, and together make the Disease, is call'd the *Procatarctic Cause*; and this improves the pre-disposed Constitution or Part into a real morbid State, and subjects it to actual and immediate *Illness*.

Remote and proximate Causes, whence.

The *Remote* and *Proximate Causes* arise from Principles of various Kinds, but may be reduced to four general Heads, which are (1.) The *Ingesta*, or Things receiv'd into the Body, as *Air*, *Meat*, *Drink*, *Medicines*; as also all manner of *Fumes*, *Scents*, *Contagions*, and other *invisible Species* which enter unseen the small *Pores* and *Spiracles* of animal Bodies, or by any other Passages whatever. (2.) The *Gesta*, or Things done by the Body or any Part, as *Motion*, *Rest*, the *Affections* of the Mind; as also *Sleep* and *Watching*. (3.) The *Retenta* and *Excreta*, or *Things retain'd in*, and *excern'd from*, the Body, whether they are *Salubrious*, *Recrementitious*, or *Morbose*; as the *Blood*, *Saliva*, *Urine*, *Semen*, *Bile*, the *Fæces*, &c. (4.) The *Applicata*, or Things *externally applied* to the Body; as *Air*, *Vapour*, *Foments*, *Baths*, *Raiment*, *Liniments*, *Plaisters*, or any thing causing *Wounds*, *Bruises*, *Fractures*, *Corrosions*, &c.

Non-naturals.

Some *Physicians*, with less Reason and Accuracy, have made the *general Topics* or *Sources* which minister

the

the aforesaid Causes of Diseases to be the following: (1.) Air. (2.) Meat and Drink. (3.) Motion and Rest. (4.) The Passions. (5.) The *Excretions*; and (6.) Sleep and Watchfulness: While others make only the following six, viz. The *Air*, *Meat*, *Drink*, *Action*, *Rest*, and the *Passions*. These Things they call the *Res Non-naturales*, or Non-naturals, so call'd because, by an undue or ill Use of them, their natural Effects are not well perform'd, but perverted into the *unnatural* Production of Diseases, as you may see largely exemplified in Books of Physic.

Symptomatology.

SYMPTOMATOLOGY describes the *Symptoms* of Diseases. That preternatural Accident or Effect which arises from a Disease as its Cause, but yet may be distinguished from the Disease itself, and from its proximate Cause, is call'd the *Symptom* of the *Disease*; and if in the same Manner it flows from the Cause of the Disease, it is said to be the *Symptom* of the *Cause*: But if it proceeds from any prior *Symptom*, as its Cause, it is call'd the *Symptom* of a *Symptom*.

Classes of Symptoms.

FROM hence it appears that these first *Symptoms* are again themselves really Diseases, but very dissimilar in Number, Variety, and Effect; but yet, according to the Doctrine of the Ancients, they are agreeably enough distinguish'd and ranged under the three following Classes: (1.) The *vitiated Actions* of the organical Parts. (2.) The *Vices*, or corrupted State of the *Retenta* and *Excreta*. (3.) The *preternatural* or *vitiated Qualities* of the Body.

The Vital Actions how vitiated.

THE *Organical* and *Vital Actions* are vitiated in various Ways: For (1.) They may be impair'd and diminish'd; whence the *Symptom Disorexia* in a distemper'd Appetite, *Dispepsia* in a weak Stomach, &c. (2.) The Action and Power of the Part may be *abolish'd* and *destroy'd*; whence the Symptom of *Anorexia* in a lost *Appetite*, *Apepsia* in a Stomach uncapable of Digestion, and *Profusions* of several Kinds when the Vessels have lost their retentive Faculty. (3.) They may be too far *excited* and *augmented*, as in the *Palpitation* of the Heart, &c. (4.) They may be depraved and perverted; as in the *Malacia*, or a Longing-after Things unfit for Food, *Yellow Vision* in the Jaundice, &c.

Vices of the Retenta and Excreta.

THE *Second Claſs* of *Symptoms* is the *Vices* of the *Retenta* and *Excreta*, which alſo are manifold; as the Deficiency of Nouriſhment is attended with an *Atrophy* of the Part; a Redundancy of the Humours, or *Plethora*, is attended with *Inflammations*, *Eruptions*, *Profuſions*, and other like *Symptoms*. The *Cacochymia*, or *ill* and *perverted State* of the *Humours*, is attended with a direful Train of Symptoms not to be recounted for Number. The *Obſtructions* of the Secretions, and *heterogeneous Admixture* of the Excrements, greatly augment the Bulk of this *Claſs* of *Symptoms*.

Vitiated Qualities of the Body.

THE third and laſt general Claſs or Order of *Symptoms* is made up of the *vitiated Qualities* and *Temperature* of the Body. Tho' every particular Man has his *Idioſyncraſia*, or Conſtitution peculiar to himſelf, yet all Conſtitutions are ſubject to *general Depravations* with reſpect to the juſt *Balance of Nature*, whereby the *Qualities*, *Complexion*, and *Temperament* of the Body are generally affected with ſome common Vice. Of theſe vitiated *Complexions* the Antients reckon'd the following eight. (1.) The *Hot*; ariſing from too robuſt, ſtrong, and contracted *Viſcera*, and too ſharp, fizy, and accelerated Humours. (2.) The *Cold*; ariſing from juſt the contrary Cauſes. (3.) The *Humid*; proceeding from a looſe and flaccid State of the Solids, and a Redundancy of Humours too much diluted, aqueous, and ſoft. (4.) The *Dry*; from oppoſite Cauſes. (5.) The *Bilioſe*; from too great a Secretion and Abundance of the *Bile*; this agrees with the *Hot* and *Dry*. (6.) The *Sanguine*; or which abounds with great Plenty of *Blood*. (7.) The *Phlegmatic*; abounding with too much *Phlegm*, or *pituitous* and *viſcid* Humours. (8.) The *Melancholic*; ſuppoſed formerly to proceed from *a black ſort of Bile*, but it ſeems rather to proceed from Cauſes ſimilar to thoſe of the *Hot*, *Dry*, and *Bilioſe*, or rather compounded of them. And theſe are the prediſpoſing *Symptoms* which give notice what Diſeaſes the Habit of each Conſtitution is ſubject to.

Various Temperaments of the Body.

Of Semeiotics.

SEMEIOTICS is that Part of *Phyſic* or *Medicine* which treats of thoſe *Phænomena* or *Signs* of Diſeaſes by which the *Phyſician* is aſſiſted in making a Judgment of the Preſence, Nature, State, and Event thereof, by a juſt *phyſiological* Ratiocination.

OF theſe *Pathognomic* Characters or Signs of Diſeaſes, there are reckon'd two Sorts, (1.) Thoſe which are call'd the *Diagnoſtics* or *Delotic Signs*: Theſe are the peculiar Appearances that reſult from the Cauſes, and comprehend that Collection of concurring Symptoms that clearly indicate the Preſence, Nature, and Intenſeneſs of the Diſorder: For every Diſtemper has its peculiar *Marks* or *Tokens* whereby it is differenced from every other, tho' ever ſo nearly related by ſome common Characters. (2.) The *Prognoſtics* are thoſe *Phænomena* which enable the *Phyſician* to foreſee and foretel the *Event* of the *Diſeaſe*, and the *Fate* of the *Patient* conſequent thereupon. The *Prognoſis* therefore of Diſeaſes is to be taken from the *Intenſity* of the Diſeaſe, the *Force* of the *Symptoms*, and the *Impreſſions* they make on the Conſtitution of the *Patient*.

Diagnoſtics of a Diſeaſe.

The Prognoſtics

THE *DIAGNOSTICS* of a Diſeaſe are form'd from the following general and particular *Topics*: (1.) The *Pulſe* of the Arteries; hereby the *Motion*, *Velocity*, *Heat*, and *Temperament* of the Blood is in a great meaſure indicated. (2.) The *Breath* or *Reſpiration*; which indicates the *Nature*, *Place*, and *Intenſity* of the Diſorders of the *Lungs* and other Parts of the *Thorax*. (3.) The *Urine*; which by its *Quantity*, *Colour*, *Odour*, *Taſte*, *Fluidity*, and *Contents* inherent in it, diſcovers very obviouſly the *State* and *Quality* of the Blood, and the Diſpoſition of the Parts thro' which it comes. (4.) The Parts affected; which, as they are the more *noble*, are the more *dangerous*. (5.) The Degree of *Pain*. (6.) The *Manner* of the *Attack*. (7.) The *Parts communicating*. (8.) The *Temperament* of the *Patient*. (9.) The *Force* and *Effects* of the *Symptoms*.

Topics of the Diagnoſtic Signs,

THE *PROGNOSTICS* of Diſeaſes may alſo in a good meaſure be deduced from the foregoing *general Topics*, but more effectually from the following *particular* ones: As (1.) The *Neceſſity* of the *Function* of the Part indiſpoſed to Life and Health. (2.) The *peculiar Nature* and *Diſpoſition* of the ſaid Part. (3.) The *Increaſe* and *Malignity* of the Diſeaſe itſelf. (4.) The *Violence* of the *Symptoms*. (5.) The *Excretions*, as Sweat and Urine. (6.) The *epidemical Diſpoſition* of the Air. (7.) The *Seaſon* of the Year. (8.) The *Sex*, *Age*, *Manner* of Life, &c. of the Patient.

and of the Prognoſtics.

The Object of Diagnosis and Prognosis.

THE Object of the *Diagnosis* and *Prognosis* of Diseases is more immediately the Matter thereof in its different *Permutations*, which in its first State is said to be *crude*, in the second *mature*, in the third *critical*, which is then generally thrown off by some *critical Evacuations*, as *Vomiting*, *Salivation*, *Fluxes*, by *Urine*, the *Hæmorrhages*, *Bleeding*, *Perspiration*, or *Revulsion* of Humours from one Part to another. Thus the Disease by Degrees either declines and goes off, or becomes more malignant, dangerous, and ends in Death, according as the Time and other Circumstances of the *Critical Evacuations* were favourable and requisite or not. Whence the following *Axioms* in *Diagnostics* and *Prognostics*, and others like them, have been received and established, *viz.* (1.) The *Critical Evacuation* happening after the *Maturity* of the Disease, is always good. (2.) The same happening on the critical Day is good. (3.) It is various with regard to the Time, Age, Temperature, Sex, Region, Season, Disease, and epidemical Constitution of the Air. (4.) It is always bad before the *Maturity* of the morbific Matter. (5.) The *Maturity* or *Digestion* itself is always good. (6.) The sooner the Matter of the Disease comes to a State of Digestion the better, but not so of the *Crisis*. (7.) The more *vital*, *animal*, or *natural* Functions continue the same as they were in Health, the greater Degree of Life, and better Hopes of recovering perfect Health remains. (8.) The more necessary that Function is, on which many others depend as their Cause, and which in a sick Person is affected with the Disease, the more dangerous is his Case. (9.) The more any of the disordered vital Actions change to their natural State, the better the Digestion goes on. (10.) The more the Excrements are like those in Health, the more perfect is the Concoction or Digestion; and the contrary.

Axioms of Diagnostics and Prognostics.

THERE are three principal Things by which the Physician is assisted in discovering the Nature, State, Species, Seat, *&c.* of a Disease, and forming his *Diagnosis* and *Prognosis* of the same, *viz.* the *Pulse* of the Arteries, the *Breath* and *Urine*.

The Pulse indicates the State of the Blood.

THE *PULSE*, as it indicates the Manner of the Blood's Motion in all its Variations, is of the greatest Consequence to be well understood; it is the *Compass* by which the *Physician* steers his Course in discovering the

the State of the latent Parts and Regions of the *Microcosm*. By the *Elevation* or *Depression* of the Pulse above or below the *Natural Standard*, he judges the Impulse of the Heart to be stronger or weaker, the Contraction of the Solids to be greater or lesser, and the Motion of the Fluids to be swifter or slower, than what should naturally be. The principal Distinctions or Variations of the Pulse, and their Indications, are as follow.

High. A *High Pulse* that beats quick, indicates *acute* continual Fevers, and generally attends the *Paroxysms* of *Chronic* Diseases, where the Intenseness of the Pain is apt to create a Fever; for in such Cases the Solids have their Contractions elevated above the natural Tone, which they suffer from the Endeavours of Nature to remove the Cause of the *Paroxysm*.

Quick. A *Quick Pulse*, if *low*, is ever a *weak Pulse*; and most commonly attends Malignant Fevers, and arises from Obstructions in the Brain, whereby the Animal Spirits cannot be detach'd in Quantities sufficient to influence the Heart. Hence spring all those fatal *Stupors* and Disorders of the Brain, which the Patient generally sustains under these Circumstances.

Strong. A *strong Pulse*, if high, is generally an hard Pulse; and indicates inflammatory Fevers, as the *Pleurisy*, *Peripneumony*, &c. which proceed from a *Plethora* or Fulness of the Vessels, which keep the Arteries tense, and distended with their Fluids.

The *Pulse* which attends the most acute Pains, or Nervous Disorders, differs but little from what it beats when the Body labours under acute inflammatory Fevers; as in the severe Pains of the *Gout*, *Stone*, &c.

Slow. A *slow*, *weak*, *equal Pulse* is generally the Concomitant of *Chronic Diseases*, which arises from the over relax'd State of the Solids, and the consequent Viscidity of the Fluids. Yet the *Pulse*, in this Case, is stronger than in Malignant Fevers. This Pulse therefore attends the *Scurvy*, the *Jaundice*, *Melancholy*, and all those of a *cachectic* Habit of Body. And if the Pulse under these Circumstances varies to a *little quicker*, there is a Danger of Wastes, Decays, and Consumptions.

Respiration another Indication of the RESPIRATION, or the *Breath*, is the next principal Sign which indicates to the Physician the internal State of the *Patient*, and the Nature of his Ma-

State of Patients.

lady. If the Respiration be *easy, constant* and *free*, it indicates a good State of the Lungs, and a commodious Transmission of the Blood through them. If it be *difficult*, it denotes the contrary, and is the worst Presage in all Cases that can be: If it be at the same time *painful*, it betokens for the most part somewhat of an internal Inflammation, a most *inauspicious Omen*. A *great Respiration* is always a favourable Sign; as, on the contrary, a small one is very ominous. A *gentle Respiration* is in itself the best Sign; but if too *quick*, it declares the Organs of Breathing to be ill affected, and therefore is fearful and dangerous. An *equal* and *unequal* Respiration is very auspicious or very ominous respectively. A *suffocative Respiration* ordinarily denotes Death shortly; and that is almost as bad which is high and in the upper Part of the *Thorax*. A cold Breath is deadly, as denoting a Gangrene of the Viscera and internal Vessels. A *short, interrupted*, and *difficult Breath*, every one knows is the constant Concomitant of the *Phthisis* or *Asthma*. But the *Phænomena* of Respiration are wonderfully varied and disturbed in divers Men, according to the native Constitution of the Body, and Formation of the *Thorax*, and other Parts serving to Respiration.

Urine a third Indication of the State of the Body.

The *URINE* conduces much to form a just *Diagnosis* and *Prognosis* of the Disorder; but because it has been abused and prostituted to vile Ends and Purposes, the *Urinal* is now brought into general Contempt; and a wise and regular Physician will scarce hear of the *Inspection of Urine*, because the Quack and Empiric so much abuse it; and there is a Statute which prohibits the Members of the College *giving Judgment on Urine* unless present with the Patient to judge of all the other concurring Symptoms. However, 'tis very certain, that the *Urine* is a very proper and useful *Sign*, and highly necessary to be well attended to. I shall therefore point out some Accidents by which it is a very obvious Sign, both *Diagnostic* and *Prognostic*, to the judicious Observer. (1.) An extraordinary Discharge of Urine denotes a *Laxity* of the Parts, a diminish'd Perspiration, an imperfect Mixture of the Blood, or some Nervous and Hysteric Disorders, excessive Drinking, *&c.* all which are undoubtedly of great Importance to be known. (2.) Too small and sparing a Discharge indicates obstructed

Vessels;

Veſſels; an Increaſe of other *Excretions*. (3.) A thin, limpid, aqueous, inſipid, taſteleſs and uncolour'd Urine is a very bad Symptom, and predicts an ill State of the Viſcera, Deliriums, Phrenſies, Convulſions, and many times Death in acute and inflammatory Diſeaſes. (4.) A red Urine, without a Sediment, in acute Diſeaſes, gives a *terrible Idea* of the Caſe of the Patient, and foretels it will be attended with fatal Conſequences. (5.) The ſame with a Sediment, preſages the Continuance of the Diſeaſe; the Weakneſs or Deſtruction of the ſmall Veſſels; Sweats, Salivation, and colliquative *Diarrhœas*; *Atrophy*; and all ſorts of Dropſies. (6.) A *Saffron-colour'd* and *bitter Urine* is always the Effect of the Jaundice. (7.) A green Urine, with a thick Sediment, denotes Melancholy, Iliac Pains, Cholics, Anxieties of the Heart, &c. (8.) A fetid Urine indicates the Salts and Oils to be too much attenuated and diſſolved, and almoſt putrified; and therefore is a *formidable Symptom* both in acute and chronical Diſorders, and ſhews the Cure very difficult. (9.) *Thin Skins* and a *mucous Subſtance* floating in the Urine, ſhews a Decay, Waſte and Conſumption of the Parts. (10.) A *fat* and *oily* Urine, though very rare, yet when it happens, denotes or threatens the *Phthiſic* and *Atrophy*. (11.) An apparent colour'd Urine, without Taſte, loudly ſpeaks the Powers of Nature deſtroy'd, and Death at hand. (12.) A *pale, thin Urine*, with a *gritty* Sediment, always denotes the Gravel or Stone in the Bladder. (13.) A plentiful Diſcharge of Urine is accounted a favourable *Prognoſis* under all Diſeaſes, but the *Diabetes*; as on the other hand, (14.) A Suppreſſion, or partial Evacuation thereof, is often a fatal *Omen*; and argues the acute Diſeaſe is not at its height, and indicates the *Paroxyſm* of Chronic Diſorders will be of long Duration.

HYGIEINA is the fourth great Part of *Phyſic*, and which treats of the Ways and Means of preſerving Health and Life free from the Inſults and Attacks of the moleſting Infinity of Diſtempers; and though it be almoſt impoſſible to do this in Perfection, yet by a careful and prudent Conduct, Men might enjoy their Health with greater Conſtancy, and know much leſs of the Evils and Miſeries of Life, which proceed from Diſeaſes, and ill Habits of Body, contracted

Hygieina, or the Doctrine of preſerving Health.

tracted in a great Measure by Luxury, Intemperance, and irregular Courses of Life.

The Prophylactic Part of Physic.

This *Prophylactic* Part of *Physic*, as it is concerned in conserving Health, and preventing Diseases, doth mainly consist in a due Use, Application, and Regulation of the *Non-Naturals* before-mention'd. But in regard to these, no such *special Rules* can be given as shall exactly suit every particular Man; for by Reason of that *Idiosyncrasy*, or peculiar Habit of every Man's Constitution, which is not improperly call'd a *second Nature*, no one *Regimen* or Manner of Living can be prescribed for all Men, or indeed scarcely for any two: Therefore 'tis in the Physician's Power only to dictate some general Things relating to the Nature, Properties, and Effects of *Meats*, *Drinks*, *Air*, *Motion*, the *Passions*, *Sleep*, &c. as may be necessary for every Man to observe. The principal Doctrines of this kind are as follow.

How Health is affected with Alteration of the Non-Naturals

To make a *sudden Change* or *Alteration* of one's common or customary Way or Method of Living, Place of Abode, &c. to any thing new or contrary, is always and every where dangerous; even tho' it be from what is vulgarly thought evil, to that which is reputed good.

As of Air.

A *dry*, *serene*, which is always an *heavy* Air, is the most wholesome to every Man in his own Place.

A *cold* and *nitrous* Air, tho' it agrees with the *Robust*, yet is pernicious to weak and infirm Constitutions, by raising the Contractions of the Vessels too high, and thereby occasioning Obstructions in the *Capillaries*, which produce inflammatory Fevers; as the *Pleurisy*, *St. Anthony's Fire*, &c.

A *hot sulphurous* Air is also apt to exalt the Contractions of the Solids extremely, and by its fiery Particles to disturb, vitiate, and embarrass the Actions of Nature to the last Degree; from which Origin arise *Inflammatory*, *Petechial*, *Nervose*, *Epidemical*, *Malignant*, &c. *Fevers*, so rife about *July* and *August*.

A *damp*, *moist*, *foggy* Air, on the other hand, too much relaxes the Vessels, and thence proceed preternatural *Cohesions* and *Viscidities* of the Fluids, affecting the Parts with *Scorbutic Swellings*, *Schirrosities*, stubborn *Coughs*, *Phthisies*, and all those *Agues* and *Intermittent Fevers* which pester Mankind in the Winter and Spring Seasons.

A

A DIET of the most simple Meats, void of Fe- *Diet.*
culency and Acrimony, whose Parts are not over active, similar to the sound Body, and easy to be assimilated thereto, is the best and most wholesome of all others. Such are the *frumentaceous* Seeds we eat in Bread; the *leguminous* Seeds, &c. as Beans, Peas, &c. the various sorts of Herbs and Plants we use for Salad, both Roots and Leaves; divers sorts of Fruits; and lastly, the young, sound, and tender Flesh of Animals, and the Broths made of it; as also Milk and Eggs.

In some Constitutions, where the *Viscera* are strong and robust, your soft, humid, tender, light, and pure Aliments are not so proper and sufficient as are the more dry, hard, gross, weighty, and feculent Meats, which satiate Hunger longer, and yield a more substantial Nourishment.

In an *alcaline* Temperature of Body, a Diet of acid Substances, as Seeds, Fruits, Roots, and Leaves of Vegetables, very much conduce to its Well-being; and on the contrary, your *alcaline* animal Diet is most advantageous for Constitutions abounding with *acid* Salts, since they temper and correct one another.

High-season'd Meats, and Sauces of Acids, Salt, and Aromatics, heighten the Contraction of the Solids above the Standard of Nature, and by their Acrimony hurt the very fine Vessels; and creating a false Appetite, they rather load and surcharge the Body, than nourish it.

THAT Quantity of Food is always best, that is follow'd by a Sense of Refreshment, and not of a torpid Heaviness, or Unaptness to Motion; *Sobriety* and *Temperance* being always the indispensable Means in order to *Health* and *Longevity*.

FOR DRINK, cold, clear, light, tasteless, scent- *Drinks.*
less, brisk running Water is the best for a stout robust Constitution; if it be only intended to satisfy Thirst, to replenish and dilute the Humours, and to correct their Acrimony. But if they are intended to warm and excite Motion, and attenuate, then good fine Beer, and clear fragrant and grateful Wines are very advantageous. A continual Glut of Juices being charg'd on the Blood, destroys, in time, the Tone and Texture of the Solids, and brings on *Asthma's*, *Dropsies*, the *Gout*, &c.

Exercise. *EXERCISE* in a moderate Degree, is attended with the greateſt Advantages to Health; but when *exceſſive* it fails not to infer great Damages to the Conſtitution, eſpecially in *weak infirm* People, and upon a *full Stomach*. In *hot*, *ſanguine*, and *bilious* Conſtitutions, ſtrong Exerciſe is apt to excite *Fevers*, *Pleuriſies*, and other inflammatory Diſeaſes; and all violent Exerciſe is very dangerous, and has prov'd fatal to thouſands.

Reſt. *REST*, when opportunely taken, is very refreſhing, as every one knows; but even this, if indulg'd to *Exceſs*, that is, to *Idleneſs*, perverts into a *Vice* againſt both *God* and *Nature*; in which Caſe the vital Actions flag and loſe their natural Vigour, and a gloomy Attendance of Diſeaſes, as *Head-Achs*, *Vapours*, *Hyſteric Fits*, *Melancholy*, *Swoons*, *Vertigo's*, &c. conſtantly await the *inactive* and *ſedentary* Life.

Sleep. *SLEEP* is a State wherein the Body receives freſh Supplies for recruiting the *Waſtes* made by carrying on the animal Actions of the Day; and every one finds the *Slumbers* of the Night are the ſweeteſt Indulgence of kind Nature. But here again the Extremes are pernicious; for if we are very *watchful*, and ſleep little, the animal Actions are depreſſed and infeebled, the Spirits exhauſted and conſumed, and *Deliriums*, *Phrenſies*, and *Madneſs* itſelf invade the Conſtitution, till at laſt it is waſted and conſumed: While on the other hand, a *ſleepy lethargic* Temper impairs the Solids, and renders their Actions *effete* and *languid*, *checks* and *damps* the animal Spirits, and creates *Vapours*, *Crudities*, *Viſcidities*, the *Scurvy*, *Cachexy*, with an univerſal Waſte of the whole Body.

The Paſſions. THE *PASSIONS* and *Affections* of the Mind are abſolutely neceſſary to the Exiſtence of *human Nature*; but as in all things elſe, ſo here Extremes (which are moſtly on the *Exceſs*) are of *dreadful Influence* to the Body; nothing being able to effect ſo *great* and *ſudden* Alterations in the *vital* and *animal Actions* of the Body, as the *Paſſions* of the Mind too much exalted, depreſſed, and diſturbed. Even that noble Paſſion *Joy*, or *Gladneſs*, can inſtantly kill by *Exceſs*; and what numberleſs Multitudes are conſtantly hurried down to the cold Abodes of the *King of Terrors*, DEATH, by his terrible Prime Miniſters, *Grief*, *Horror*, *Deſpair*, *Sorrow*, *Anguiſh*, *Care*, *Fear*, &c.!

FROM

FROM all which it plainly appears, that a due Regulation of the *Non-Naturals* is that on which our *Health* and *Life* in a great measure depends, and ought therefore to be made the Care and Business of every Man, as it is by all that are truly *rational*, *wise*, and *sober*.

Of Therapeutics, or Curative Part of Physic.

THERAPEUTICS is the last great Part of *Physic*; and its Subject is the *Methodus Medendi*, or Manner of *Curing Diseases* by proper *Medicines* and *Remedies*. When therefore the *Physician* is call'd to the Aid of a *Patient*, before he sits down to prescribe, he first surveys the Case of the Patient, and accurately observes the *Symptoms*, and thence infers the *Nature*, *Cause*, *Seat*, and *Greatness* of the *Malady*; and consequently what is indicated to be done in order to the *Cure*.

Four Kinds of Indication.

OF these *Indications* there are reckon'd four Kinds, *viz.* (1.) The *Vital Indication*, which requires the Preservation and Continuance of *Life*, or the Actions of the Vital Faculties as they are in a sound Body. (2.) The *Prophylactic* or *Preservative Indication*, when somewhat is to be done to prevent the approaching Disease by cutting off the Cause thereof, and thereby preserving the Body in Health. (3.) The *Therapeutic* or *Curative Indication*; this shews the Necessity of removing the present Disease by the Application of Remedies. (4.) The *Palliative Indication*; which directs the *Mitigation* or *taking away* some of the *Symptoms* before the Distemper can be wholly remov'd.

BY these *Indications* the Mind of the *Physician* is fully inform'd of the various Intentions to be answer'd in order to effect a Cure; and accordingly he applies himself to the *Materia Medica*, and consults all the various Classes of Medicines to find those which are most proper to remedy the Indisposition of his Patient; and then prescribes them to be made for his Use.

Of the Materia Medica.

THE Diseases to which Mankind is subject, are not more numerous than the *Remedies* which Nature hath providently supplied for their Cure: The Field of the *Materia Medica* is every way vastly wide and extensive; whence it is we find Physicians so often boasting (as the *Vicegerents* of Nature) of their *Triple Dominions*, of the *Mineral*, *Vegetable* and *Animal Kingdoms*. Hence they select and muster their numerous Forces of *Medicines*, and marshal them in various

Classes

Classes and Regiments, always in a Readiness to command against the potent and common Enemy of human Nature.

The various Classes of Medicines.

I SHALL just enumerate the principal Sorts of *Medicines* made use of in the present Practice of *Physic*, and distinguish them by Names which indicate the Intentions they are appropriated to answer by their peculiar Virtues: They are as follow, (1.) *Cardiacs* or *Cordials*; these raise the Spirits, enliven the Mind, comfort the Heart, and add Strength and Chearfulness to the Body, by increasing the *Springiness* and *Force* of the *Fibres*, and the agreeable Sensations excited by their *Aromatic* and *Spirituous* Parts. (2.) *Cephalics*; under this Class are comprehended all those Medicines which are good for the Distempers of the Head. (3.) *Stomachics* are all those Medicines as are serviceable to the *Stomach*, which by a peculiar Warmth give both a grateful Sensation and a suitable Tensity to its fibrous Coats, and thereby also excite Hunger and promote Digestion. (4.) *Hysterics*, or *Uterines*, are such Medicines, as by their strong Scent, whether *sweet* or *fetid*, prove serviceable in all Disorders of the *Womb* or *Hysterical Affections*. (5.) *Alexipharmics*, or *Antidotes*, properly are such Things as are given to expel Poisons, or correct them so, that no Mischief follow the taking them: But now *Alexipharmics* signify any Medicines good against Fevers. (6.) *Carminatives* are such Things as expel and dissipate *Wind* or *Vapours* pent up in any Membraneous or Nervous Part. (7.) *Agglutinants*, such as *incrassate* and thicken the Humours, which are thereby rendered more consistent and fit for Nourishment. (8.) *Astringents* are those Medicines which are *binding*; and they act either by the *Asperity* of their Particles, which contracts, corrugates, and binds up the Part; or else thickens the Fluids that they run not off so fast as before. (9.) *Absorbents* are such as by the Porosity of their Parts, either case the Asperities of the pungent Humours; or, like a Spunge, *drink up* the superfluous Moisture of the Body; and thus they are said to be *Dryers* or *Sweeteners* of the Blood. (10.) *Analepties* are such as cherish the Nerves, and renew *Spirits* and *Strength*. These four last are call'd *Strengtheners*. (11.) *Emollients* are such as sheath and soften the Asperities of the Humours, and relax and supple the Solids at the same time. (12.) *Restoratives*;

Cardiacs.

Cephalics.

Stomachics.

Hysterics.

Alexipharmics.

Carminatives

Agglutinants.

Astringents.

Absorbents.

Analeptics.

tives; these are near akin to the *Agglutinants*, but being of a more subtil and adhesive Nature, they pass the finest *Strainers*, or *Secretions*, and enter into the Nourishment of the remotest Parts, repairing the Wastes of the Constitution. (13.) *Deobstruents* are such *Medicines* as are peculiarly adapted by their Weight to open the Obstructions of the Fluids in the Capillaries, by increasing their *Momentum*, and causing them to strike with greater Force against the secretory Outlet. *Deobstruents.* (14.) *Diuretics* are those Medicines whose remarkable Property it is to increase the Discharge by *Urine*, by removing Obstructions of the *Urinary* Passages from what Cause soever. And this they do, either by softening and lubricating the Parts; or by attenuating and rarifying the viscous Humours; or, lastly, by altering the *Crasis* of the Fluids, so as to fit those to pass which could not get through before. *Diuretics.* (15.) *Diaphoretics* are those which procure *Sweat*, by dividing and attenuating the Humours so far, that they become fine enough to escape through the smallest Passages, as those of the *cutaneous Glands*; or else by their contracting and squeezing the Solids, which force out of the Extremities what lay in Readiness before to go off. *Diaphoretics.* (16.) *Emetics* are all those Medicines, which by their *Stimulus* do so vellicate and irritate the Fibres of the *Stomach*, as to make the Coats contract, and forcibly throw up the Contents by Vomiting. *Emetics.* (17.) *Cathartics* are Medicines which purge by Stool; they have the same Qualities as the *Emetics*, but in a lesser Degree, and therefore pass into the Intestines before they can produce their Effects. The milder Purgers are call'd *Laxatives*, but the rougher ones *Drastics*. *Cathartics.* (18.) *Sternutatories* are such Medicines as by their *Stimulus* vellicate the Membranes of the Nostrils, excite *Sneezing*, and by a violent Concussion of the Head and Body, produce an Evacuation of troublesome Humours by the Glands of the Mouth and Nose. *Sternutatories.* (19.) *Narcotics*, *Hypnotics*, or *Opiates*, are all Names for those Things which have the Property of causing *Sleep*, which they effect in a Manner not easy to be explain'd or accounted for. *Narcotics.* (20.) *Refrigerants*, or *Coolers*, are such as produce an agreeable Sense of *Cold*, and mitigate the Heat and Drought of the *Mouth*, *Stomach*, and other of the *Primæ Viæ*. *Refrigerants.*

An Alphabetical Catalogue of Diſeaſes.

THERE are other Titles of Medicinal Claſſes of Remedies, but not worth rehearſing; thoſe here mentioned being the moſt common and conſiderable: I ſhall now conclude this Chapter by an *Alphabetical Catalogue* of thoſe *Diſeaſes* or *Illneſſes*, which generally vex and moleſt the whole and every Part of our crazy Conſtitution.

Abortion, an immature Birth, or before the *Embryo* is compleatly form'd and fitted for Excluſion.

Acraſy, a Debility from the loſt Tone of the Parts.

Ague, an intermittent Fever, attended with alternate Fits of Heat and Cold; proceeding from an increaſed Velocity and Viſcidity of the Blood.

Anthony's Fire. See *Eryſipelas*.

Apoplexy is a ſudden Deprivation of all internal and external Senſation, and of all Motion except of the Heart and Thorax; cauſed by an Obſtruction of the Animal Spirits in the Nerves.

Aſthma is a frequent, difficult, and ſhort Reſpiration, join'd with a hiſſing Sound, and a Cough; proceeding from an ill State of the Lungs, wherein they cannot exert themſelves freely, in Dilatation and Contraction.

Atrophy, an inſenſible Waſte or Decay of the animal Body for *Want of Nouriſhment*.

Barrenneſs. See *Sterility*.

Bloody-Flux. See *Dyſentery*.

Cachexy, a bad *Habit* of Body, when the *Viſcera* are unſound, and the Juices diſtemper'd.

Cacochymy, a vitiated State of the Juices.

Calenture, a Sea-Diſeaſe, wherein the Sea appears as pleaſant as green Fields.

Cardialgia, the Heart-Burn, proceeding from the Acrimony of ſome exploſive Matter in the Stomach.

Catarrh. See *Defluxion*.

Chloroſis, the Green-Sickneſs, which ariſes from a cold heavy Blood, and to be cured chiefly by Exerciſe.

Cholic, an acute and painful Diſorder of the Bowels, ariſing either from the *Acrimony* of too much *Bile*; or from *Flatus's*, or Wind pent up; or from ſome Diſorders of the Womb; or, laſtly, from ſome Diſorders of the Nervous Fluid in the Coats of the Guts themſelves; and accordingly it is ſaid to be *Bilious*, *Flatulent*, *Hyſteric*, and *Nervous*.

Conſumption,

Consumption, a Decay of the Body by a Waste of the Solids or Muscular Flesh, and is of several Kinds.

Convulsions consist in an involuntary Contraction and Commotion of the Fibres and Muscles, whereby the Body and Limbs are preternaturally distorted.

Cough is the Effect of a convulsive Motion of the Muscles, and Parts of the *Abdomen*, *Thorax*, and *Throat*.

Cramp, a convulsive Contraction of the Muscles of any Part.

Crapula, a Surfeit proceeding from too much Eating and Drinking; attended with Heavineſs and Diſorders of the Head.

Deſluxion, a flowing of ſharp Serum or Rheum from the Glands of the Head and Throat, occaſion'd by a Cold, and cauſing *Irritations*, *Coughs*, &c.

Delirium, Lightheadedneſs, a diſturb'd Senſation ariſing from a violent Diſorder of the Brain and Spirits.

Diabetes, a profuſe or too great Diſcharge of Urine.

Diarrhœa, a Looſeneſs, or Flux of the Belly.

Dropſy is a preternatural Secretion of the *Serum* or *Water*, which lodging in the Conſtitution, diſtends and weakens the Parts; and proceeds from too lax a Tone of the Solids.

Dyſentery, a Flux of ill Humours by Stool, and ſometimes attended with Blood.

Diſpepſy, a bad Digeſtion in the Stomach.

Diſury, a Difficulty of making Urine.

Elephantiaſis. See *Leproſy*.

Epilepſy is a convulſive Motion of the whole Body, or ſome of its Parts, with a Loſs of Senſe.

Epiphora, a Deſluxion of Humours on the Eyes.

Eryſipelas, a cutaneous Inflammation, attended with great Pain and Swelling.

Fever is an increaſed Velocity of the Blood; the almoſt infinite Variety of its Cauſes occaſions almoſt as great a Diverſity of its Appearances and Effects; it is always attended with *Heat*, *Sickneſs*, *Debility*, *acute Pains*, and ſometimes with *Deliriums* and *Madneſs*. There are ſeveral kinds, as *Inflammatory*, *Intermittent*, *Hectic*, *Nervous*, &c.

Flux. See *Diarrhœa*.

Freckles. See *Lentigo*.

Glaucoma, a Change of the natural Colour of the Eye without Detriment to the Sight.

Gonorrhœa, an involuntary flowing of the Seed, from the ulcerated Glands of the *Proſtatæ*, and *Lacunæ*.

Gout, a painful Diſtemper, conſiſting of hard Concretions of Matter in the extreme Parts of the Body.

Gravel, a Diſorder in the Kidneys or Bladder, wherein Stony Concretions, like Pebbles, are voided by Urine.

Green-Sickneſs. See *Chloroſis*.

Gripes, the ſame as *Cholic Pains*.

Gutta Serena, a Dimneſs of Sight, or confuſed Viſion of *Flies*, *Duſt*, &c. yet no Defect of the Eye is to be ſeen.

Hæmorrhage is a Flux or Burſting out of Blood from any Part, proceeding from a *Plethora*.

Hæmorrhoids is a Bleeding or painful Swelling of the *Hæmorrhoidal* Veins about the Fundament.

Heart-Burn. See *Cardialgia*.

Hectic, a ſlow continual Fever that ends in a Conſumption.

Head-Ache. See *Pain*.

Horrour, ſuch Shuddering and Quivering as precedes Fits of an Ague.

Hydrophoby, a Fear of Water, a Symptom that follows the Bite of a Mad Dog.

Hypo, any Diſorder of the Liver and Spleen; and Womb in Women. See *Malancholy* and *Vapours*.

Hyſteric Paſſion, Fits of the Mother, or Diſorders of the Womb, which frequently bring the whole *nervous Syſtem* into Diſorder alſo.

Jaundice, a Diſtemper from Obſtructions of the Glands of the Liver, which prevent a due Secretion of the Gall, which therefore being carried through the Habit of the Body, tinges the Extremities with Yellow.

Iliac Paſſion, a kind of *nervous Cholic*, wherein the *Colon* is twiſted, or one Part enters the Cavity of the other.

Inappetency, a Loſs or Want of Appetite.

Impotency, the Inability of Males to impregnate the Females, from a Weakneſs of the Genital Parts.

Incubus,

Incubus, the Night-Mare or *Aſthma*, proceeding from ſome Obſtruction of the Blood-Veſſels in the *Thorax*, or of Reſpiration.

Inflammation, a Swelling with great Heat and Pain.

Intermittent Fevers. See *Ague*.

Iſchias, the Hip-Gout.

Iſchury, a Stoppage of Urine, by Stone, Gravel, *&c.*

Itch, a Cutaneous Diſtemper, proceeding from ſharp Humours which corrode the Miliary Glands.

Lentigo, a freckly or ſcurfy Eruption upon the Skin.

Leproſy, a dry, white, ſcabby Eruption, in the Manner of Scales on the Skin.

Lethargy, a Diſtemper attended with the Loſs of the rational, at leaſt the retentive Faculties of the Mind, and an Inaptitude to Motion.

Leucorrhœa, the *Fluor albus*, or Whites in Women.

Lientery, a Looſeneſs wherein the Aliments are voided with little or no Alteration.

Lypothymy, a Fainting, or Swooning away.

Lithiaſis, the Stone or Gravel.

Lues Venerea, the Pox, or Foul Diſeaſe.

Lumbago, troubleſome Pains about the Loins.

Lunacy, a kind of Frenzy, or Diſorder of Mind.

Madneſs is a Delirium without a Fever, or State of Mind wherein the *Ideas* are receiv'd without any natural Order or Coherence, and produce uncommon Effects.

Malacia, a deprav'd Appetite.

Mania. See *Madneſs*.

Melancholy, a dull and gloomy Diſpoſition ariſing from too heavy and viſcid a Blood, and Paucity of Animal Spirits.

Meaſles. See *Small-Pox*.

Miaſm, a contagious Scent from Diſeaſes, *&c.*

Miſerere Mei, ſharp Cholicky Pains, ſo call'd.

Morphew, the Freckles.

Myopy, Purblindneſs.

Nauſea, a Loathing of Food, *&c.*

Nebulæ, Films or little Clouds in the Eye.

Nephritis, the Stone in the Kidneys.

Noli-me-tangere, a very ſore tetterous Eruption.

Obſtructions, Stoppages in the Veſſels of any ſort.

Ophthalmy, an Inflammation of the *Tunica Adnata* of the Eye, attended with Redneſs, Heat, Pain, Swelling, ariſing from a Stagnation of the Blood in the capillary Arteries.

Orthopnæa, a great Difficulty of Breathing.

Pain is an uneaſy Senſation ariſing from a Solution of the Continuity of the Parts of Nerves and Fibres, which is proper to their natural and ſound State.

Palpitation, a Beating, a Panting of the Heart.

Palſy is a Privation of Motion, or Senſe of Feeling, or both, proceeding from ſome Cauſe below the Cerebellum, join'd with a Coldneſs, Softneſs, Flaccidity, and at laſt a Waſting of the Parts.

Peripneumony, an Inflammation of ſome Parts of the *Thorax*, which occaſions a great Pain, and Shortneſs of Breath, and generally goes off by Expectoration, *&c.*

Pernio, a Kibe or Chilblane.

Peſtis, the Plague or Peſtilence, which ſee.

Phrenitis, the Phrenſy, which is a Species of Madneſs.

Phthiſis, the *Phthiſic*, a Waſte or Conſumption of the Body, very various both as to its Cauſes and Kinds.

Piles. See *Hæmorrhoids*.

Plague is the moſt malignant, acute, and mortal of all the *Nervous Fevers*; and is communicated by Contagion.

Plethora is when the Humours are ſecreted in too great an Abundance, or beyond what a healthy State requires.

Pleuriſy, an Inflammation of the *Pleura*, proceeding from a Stagnation of Blood, and producing very intenſe Pain.

Poiſon, a moſt virulent, corroſive, and deſtructive Quality in ſeveral Things, cauſing great Swelling, Pain, and Death.

Pox, a Diſeaſe, deſervedly, tho' too well known.

Quartan, a third Day's Ague.

Quinſey, an Inflammation of the Jaws and Throat.

Rheumatiſm, a Diſtemper of the common Membrane of the Muſcles, which makes it rigid, and unfit for Motion, without great Pain.

Rickets, a Diſtemper in Children proceeding from an unequal Diſtribution of Nouriſhment; which makes

makes the Joints grow knotty, and the Limbs uneven.

Scab, See *Itch*.

Scrophula, the King's Evil; and proceeds from an Obstruction and Erosion of the Glands.

Scurvy, a Disease proceeding from a Blood unequally fluid, and somewhat corrosive.

Shingles, a kind of corrosive, cutaneous Inflammation.

Small Pox, a contagious Distemper breaking out on the Skin in numerous Pustles, which ripen into a Scab.

Squinacy, the same as *Quinsey*.

Sterility, Barrenness, which arises from various Causes.

Stitches, acute Pains in the Side.

Stone, a Concretion of the harder Parts of the Urine in the Bladder.

Strangury, a Difficulty of Urine attended with a continual Dripping.

Struma, an Induration of the Glands; the King's-Evil.

Surfeit. See *Crapula*.

Syncope, a sudden Fainting or Swooning away.

Tabes, a Consumption, or Decay of Muscular Flesh.

Tenesmus, a continual Inclination to go to Stool, but ineffectual.

Tentigo, a continued painful Erection of the Yard.

Tertian, an Ague intermitting but one Day.

Tremor, an involuntary trembling of the Nerves.

Tumor, any kind of Swelling.

Tympany, the *Dropsy* which swells the *Abdomen* like a *Drum*.

Vapours, the Disorders of the *Viscera* of the *Hypochondria*.

Vertigo, Giddiness; a Disorder of the Brain, wherein Things at rest appear to move round.

Ulcer, any running Sore.

Vomiting, a casting up the Contents of the Stomach, from an Irritation or Vellication of its Coats.

Whites. See *Gonorrhœa*.

Xerophthalmia, a Distemper otherwise call'd the dry Lippitude, where the Eye-Lids turn out red and dry.

SURGERY.

SURGERY *defined.*

CHIRURGERY, or (as it is commonly call'd) *Surgery*, is the Art of the *Chirurgeon* or *Surgeon*; and is that Branch of the Art of Healing, which is perform'd by *Manual Operation*, and with proper *Instruments*.

A Surgeon, his Qualifications.

A *SURGEON* therefore is one who has a tolerable Skill in *Anatomy*, *Medicine*, and other Parts of Learning; a Man of good *Experience*, great *Dexterity*, an unshaken *Courage*, and steady *Hand*; a clear Sight, quick Thought, and of an ingenuous and honest Mind.

In *Surgery* we consider (1.) The Subject of the Art, *Diseases*. (2.) The *Manner of Cure*. (3.) The Medicines appropriated thereto. (4.) The *Manual Operations*. (5.) The Instruments used therein.

Divers Kinds of Disorders.

THOSE Diseases which afflict the human Body, and demand the Care and Assistance of the *Surgeon*, are of the following Kinds. (1.) *Tumours* or Swellings. (2.) *Ulcers*, or running Sores. (3.) *Fistula's*. (4.) *Inflammations*, or *Strumous* Disorders. (5.) *Wounds*. (6.) *Gangrena's*, or Mortification. (7.) *Dislocations*. (8.) *Fractures*, or broken Bones.

Tumours. General Causes. Affluxion. Congestion.

TUMOURS are generally occasion'd by a preternatural Quantity of Humours on the Part, either by a sudden and violent Course, call'd *Affluxion*; or else by little and little, call'd *Congestion*. But those *Tumours* which consist of a Collection of *Pus* or *Matter*, are call'd *Apostems* or *Impostumes*; and any *Tumour* is call'd an *Abscess*.

Particular Causes.

THE *Causes* of *Tumours* are various; as a contagious Air, hard Bandage, Blistering, Wounds and Bruises, ill Humours, Flatuosities, Inflammation, *&c.*

The Kinds of Tumours. Phlegmonic.

Tumours may be distributed into the following Kinds, (1.) *Phlegmonic*, or Inflammatory; as the *Ophthalmia* in the Eye; *Angina* or Quinsy in the Throat; the *Pleurisy* in the *Pleura*, or Side of the Breast; a *Peripneumony* in the Lungs; a *Bubo* in the Groins, *&c.* (2.) *Odematous*, or cold aqueous Tumours; of which some have their Matter contain'd in a *Cystis* or Bag; as the *Atheroma*, *Steatoma*, and *Meliceris*: Others not, as *Pfydracium*, *Ficus*, *Talpa*, *Nata*, *Lupia*, *Ganglion*, &c. (3.) *Stirrhous Tumours*, which

Odematous.

Scirrhous.

which conſiſt in an Induration of the Glands, from gritty, obſtructed Matter; as happens to the Liver in a *Jaundice*, or the like. Such an *Induration* is call'd indifferently by the Names *Scirrhus*, *Scirrhoma*, and *Scirrhoſis*. (4.) *Aqueous Tumours*, ſuch as proceed from a preternatural Redundancy, or an Extravaſation of the *Serum* of the Blood in the outer Parts of the Body; which in the Head is call'd *Hydrocephalus*; in the Belly, *Aſcites*; in the Scrotum, *Hydrocele*, or *Hernia aquoſa*. (5.) *Strumous* Swellings, which proceed from an Obſtruction and Eroſion of the *Glands*, the Matter whereof is contain'd in a *Cyſtis*; this Sort of *Tumour* is various in its Nature, and call'd the *Struma*, *Scrophula*, or *King's-Evil*, from an idle Conceit of its being curable by the Royal Touch.

Aqueous.

Strumous or Scrophulous.

ULCERS are the next Claſs of Diſeaſes above recited, and are defined to be a preternatural Diſcharge of Matter of various Kinds, from a Solution of Continuity or Texture of the Part, with Loſs of Subſtance. This Solution proceeds from ſome diſtemper'd Humours, eroding the Part by their virulent Particles, or from *Wounds*, &c. which in time degenerate to *Ulcers*.

Ulcers.

Of *Ulcers*, the more ſimple affect the Skin and Cuticle only, but others reach deep into the Fleſh. Of *ulcerous* Diſorders are reckon'd the following. (1.) The *Herpes exedens*, which riſeth on the Skin in little *Tubercles*, and with *ulcerous* Orifices, containing a very corroſive and penetrating Matter. (2.) *Phagedæna*, which lies deep, with tumified Lips, and erodes the Part by corroſive Humours. (3.) *Nome*, a feeding or conſuming Ulcer, which brings on a Putrefaction of the Part. (4.) *Cancer* or *Carcinoma*, a direful Sort of Ulcer, too well known. (5.) *Lupus*, or Wolf, a devouring Ulcer of the *Phagedænic* Kind, in the Thigh or Leg. (6.) *Noli-me-tangere*, a ſore ſcabby Ulcer, difficult to cure. (7.) *Achor*, a ſcabby ulcerous Tumour, in the Skin of the Head. (8.) *Favus*, an Ulcer with Matter reſembling Honey. (9.) *Ozæna*, a malignant Ulcer in the Noſtrils, eroding the Parts, and very difficult of Cure.

Several Sorts.

Herpes.

Phagedæna.

Nome.

Cancer.

Lupus.

Noli-me-tangere.

Achor.

Favus.

Ozæna.

FISTULAS are but old Ulcers, with callous Lips, penetrating with ſinuous Cavities even to the Bones, which are render'd foul and ſanious by the fetid virulent Matter of the *Fiſtula*: For a *Fiſtula*

Fiſtula's

lies deep, and ouzes out its Matter thro' long, narrow, winding Paſſages like *Pipes*, whence their Name. So when the Tumour in the great Corner of the Eye, call'd *Anchylops*, or *Egylops*, is neglected, it produces the *Fiſtula Lachrymalis*; from a *Phlegmon* in the Breaſt ill cured comes the *Fiſtula Thoracis*; and an Inflammation in the Fundament often degenerates to a *Fiſtula in Ano*.

Inflammations. *INFLAMMATIONS* and *Strumous* Diſorders proceed from an Obſtruction of the Blood-Veſſels, whereby the Blood is crowded in a greater Quantity upon the Part, and ſo receives a greater *Colour* and *Heat* than is uſual, and by *ending the Glands*, produces all Kinds of *Strumous* or *Scrophulous Indurations* and *Diſtempers* of thoſe Parts, moſt of which have been already mention'd.

Wounds. *WOUNDS* make the fifth Claſs of human Diſaſters, which come under the *Surgeon's* Care. A Wound is defined to be a *Solution of Continuity in any Part of the Body*. Under this Denomination are reckon'd (1.) *Cuts* and *Inciſions*. (2.) *Punctures* by ſharp-pointed Inſtruments. (3.) *Contuſions* or *Bruiſes* by any external violent Force impreſs'd. (4.) All Gun-Shot Wounds. (5.) All *Sprains* or *Strains* occaſion'd by a forcible and violent Tenſion or Stretching of the Part beyond its natural Tone or Tenour, attended with Pain, Debility, and Inflamation.

Gangrenes. *GANGRENES* and *Mortifications* make the next Part of the *Tragedy* of human Life. A *Mortification* is when the natural Heat of a Limb is *in Part* extinguiſh'd, and therefore the Limb *in Part* render'd inſenſible, diſcolour'd, and cold. But when the natural Heat is quite extinct, *&c.* it is call'd a *Sphacelus*, or *Sphacelation*; in this Caſe the natural Juices having loſt their proper Motions, fall into a fermentative one, and thus corrupt and deſtroy the Texture, and vital State, and Functions of the Part affected; which then is ſaid to *gangrene*, *mortify*, or be *ſphacelated*.

Diſlocations. *DISLOCATIONS* are Diſorders reſpecting the Bones, and are ſometimes call'd *Luxations*, and are when any Bone becomes diſjointed, or put out of its natural Place and Situation; which is cauſed by various Accidents, and may happen to almoſt all the Articulations of the Bones.

FRAC-

Fractures.

FRACTURES of the Bones make the laſt Diviſion of *Chirurgic* Diſorders. The *Fracture* of a Bone is a Solution of Continuity, or of the Texture and Cohesion of its Subſtance in any Part. This may be *tranſverſely*, acroſs the Bones; or *longitudinally*, along the Bone; or *obliquely*, between both. *Fractures* are *Simple*, or ſuch as happen without a Wound; or elſe *Compound*, as when they are attended with Wounds; and theſe are moſt dangerous, and the more ſo as they are in a larger Bone, and nearer the Joint.

The Curative Part of Surgery.

In the *Curative* Part of *Surgery*, the *Intentions* and *Manner* of Cure are various, according to the Nature of the Diſtemper, and the Circumſtances thereof. However, the principal *Intentions* are as follow. (1.) *Derivation*, or drawing the Humours away, (which threaten any noble Part,) to the Parts adjacent, or on the ſame Side. (2.) *Revulſion*, which is a Drawing away the Humours to the oppoſite Side or Part. (3.) *Diſcuſſion*, which is an *Evacuation* of thin peccant Matter by Perſpiration, or by repelling the Humours back into the Maſs of Blood. (4.) *Reſolution*, (or) changing the Humours from *peccant* to a *ſalutary* State. (5.) *Suppuration* and *Maturation* ſignify the *Ripening* or bringing the Matter of the Tumour into *Pus*, or laudable Matter. (6.) *Digeſtion*, which is the promoting a Diſcharge of ſuppurated Matter by proper Medicines. (7.) *Mundification*, which is a deterging or cleanſing the Tumour after the Matter is diſcharged, and fitting it for (8.) *Incarnation*, or healing and filling it up with new Fleſh. (9.) *Cicatrization*, which is the inducing a Skin upon the Sore now cured, ſo as to leave as ſmall a *Cicatrix*, or Scar, as poſſible. Theſe Intentions principally regard *Tumours*, *Ulcers*, *Wounds*, &c. in the *Fleſh*; beſides which there are many which reſpect the *Bones*, and therefore will be next taken notice of among the *Manual Operations*. And indeed what is perform'd by the Hand makes the principal Part of the *Surgeon*'s Art, and gives Denomination to the whole. The chief *Operations* perform'd by the *Surgeon*'s Hand are as follow. (1.) *Amputation*, which is the Cutting off any Limb, or Part from the Body. (2.) *Arteriotomy*, letting Blood by cutting an *Artery*. (3.) *Phlebotomy*, the ſame by cutting a

Vein,

Vein. (4.) *Bronchotomy*, an Inciſion made in the Wind-Pipe, to prevent Suffocation in a Quinſey. (5.) *Cæſarius*, a Cutting the Child out of the Womb. (6.) *Caſtration*, a Cutting out the Teſticles. (7.) *Cauteriſing*, a Burning or Scarring any quick Part with *Cauteries*, to prevent Mortification, *&c.* (8.) *Cupping*, a Raiſing the Cuticle from the Skin, in order for *Scarification*. (9.) *Cyſtotomy*, a Cutting or Opening the *Bladder*, to extract the Stone. (10.) *Fonticulation*, a Cutting or Making *Iſſues*, *Seatons*, &c. (11.) *Lancing*, making an Inciſion in any Part with a *Lancet*. (12.) *Lithotomy*, a Cutting for the Stone. (13.) *Scarification*, a Cutting of bliſter'd Skin with a Lancet. (14.) *Suture*, a Sewing the Lips of Wounds, *&c.* (15.) *Tapping*, a Perforating the Skin of the *Abdomen*, for diſcharging watery Humours, in the *Dropſy*, &c. (16.) *Trepanning*, which is the Opening a Fracture in the Skull by an artificial Perforation. (17.) *Reduction* is the replacing of diſlocated, and ſetting of fractur'd Bones by means of proper *Ligatures*, *Bandages*, and other external Applications.

The Medicines uſed in Surgery.

THE *Surgeon*, as well as the *Phyſician*, is obliged to make uſe of *Medicines* to anſwer moſt of his Intentions, and ſuch, in this Caſe, are call'd Topical Applications; theſe conſiſt chiefly of *Plaiſters*, *Cerates*, *Unguents*, *Oils*, *Infuſions*, &c. and are (according to their Quality) diſtributed into the following Kinds. (1.) *Abſtergents*, or *Detergents*, which cleanſe the Wound, and diſpoſe it for Healing. (2.) *Anaplerotics*, *Sarcotics*, and *Incarnatives*, all which ſignify ſuch Medicines as heal and fill up the Wound with *Fleſh*. (3.) *Anodynes*, ſuch as aſſuage Pain. (4.) *Aperients*, the ſame as *Detergents* nearly. (5.) *Balſamics*, oily healing Remedies. (6.) *Cauſtics*, or *Cauteries*, are ſuch as ſear or burn the Fleſh to an *Eſchar*. (7.) *Deſiccatives*, which dry up and ſkin over Wounds, *&c.* (8.) *Digeſtives*, ſuch as promote the Digeſtion of Matter in Tumours. (9.) *Epulotics*, which cicatrize and ſkin over Wounds. (10.) *Eſcharotics*, the ſame as *Cauſtics*. (11.) *Lithontriptics*, which break the Stone in the Bladder. (12.) *Narcotics*, thoſe which ſtun the Senſe of Pain. (13.) *Palliatives*, ſuch as are uſed to palliate incurable Wounds, *&c.* (14.) *Phagedænics*, which eat away the proud or fungous

fungous Flesh. (15.) *Repellents*, such as disperse the Matter of Tumours, and assuage Swelling. (16.) *Resolvents*, which open, loosen, or promote the *Resolution* of Matter. (17.) *Ripeners*, such which ripen, draw, and fit Matter for a Discharge. (18.) *Sclerotics*, such as harden and consolidate the Flesh of new cur'd Wounds. (19.) *Styptics*, such as are very binding and astringent, sufficient to stop *Hæmorrhages*, &c. (20.) *Suppurtatives*, which promote the Suppuration of the Matter of Tumours. (21.) *Topics*, all external Applications of Medicines. (22.) *Traumatics*, or *Vulneraries*, all Medicines good for Wounds. (23.) *Vesicatories*, such Things as occasion Blisters to rise on the Skin. (24.) *Xerantics*, the same as *Desiccatives*, or *drying* Medicines.

Instruments used in the Manual Operations of Surgery.

For *Manual Operations* the *Surgeon* is provided with a *terrible Apparatus* of the Instruments of *Fate* and *Necessity*. The chief of which I shall just name as follows. (1.) *Acantabolus*, to draw out splinter'd Bones, Hairs, &c. from Wounds. (2.) *Amma*, a Kind of Girdle or Truss. (3.) *Bathrum*, contrived for the Ease and Security of the Luxated Joints after Reduction. (4.) *Catheter*, an hollow Instrument to put up the *Penis* into the Bladder, to assist in making Urine, in case of the Stone and Gravel. (5.) *Actual Cautery*, a red hot Iron for *Searing* any Part. (6.) *Potential Cautery*, any *caustic* Medicine. (7.) *Glyster-Pipe*, well known. (8.) *Cucurbitula*, a Cupping-Glass. (9.) *Cyclyscus*, in the Form of an Half-Moon, to scrape away Rottenness withal. (10.) *Dentagra*, to draw Teeth withal. (11.) *Denticalpe*, to cleanse the Teeth with. (12.) *Forceps*, like a Pair of Tongs, to extract any thing out of Wounds, &c. (13.) *Forfex*, to extract or draw Teeth with. (14.) *Lancet*, an Instrument well known. (15.) *Modiolus*, that Part of the *Trepan* which cuts the Bone circularly. (16.) *Perizoma*, Trusses to keep up Ruptures. (17.) *Probe*, a small long Instrument to search the Wounds with. (18.) *Retinaculum*, us'd in *Castration*, cutting *Hernia's*, &c. (19.) *Rostrum*, crooked Sciffars, like a Bird's Bill. (20.) *Sanguisuge*, a Leach. (21.) *Scala* or *Ladder*, an Instrument for resting and defending dislocated and broken Limbs. (22.) *Scarificatory*, used to make *Scarification*, being a Number of sharp Points, set on a Plane, which are all struck into the

Part

Part at once. (23.) *Speculum*, an Inſtrument to open and dilate any Paſſage or Orifice, in order to inſpect the ſame. (24.) *Spatula*, a little Inſtrument for ſpreading Plaiſters, &c. well known. (25.) *Syringe*, uſed for injecting medicated Liquors up into any Part. (26.) *Tenaculum*, ſomewhat like the *Forceps*. (27.) *Terebra*, *Terebellum*, or *Trepan*, an Inſtrument uſed for cutting away the fractur'd Parts of a Bone, particularly of the Scull. (28.) *Vectis*, uſed as a Supporter or Prop in reducing diſlocated, or ſetting fractur'd Bones.

THERE are divers other *Chirurgical Inſtruments*, of which I know not the Names, beſides the divers Sorts of *Knives*, *Saws*, *Sciſſars*, &c. in common Uſe, which are too well known, to need Deſcription.

Of

Of POLITY *and* OECONOMICS.

MAN only, of all other Creatures, is endow'd with Faculties that render him a *Social Being*, or capable of *Converse*, *Commerce*, *Government*, *Law*, the Rules and Notions of *Right* and *Wrong*, and the Sanctions of *Rewards* and *Punishments*. Accordingly Mankind have universally, from the first Ages of the World, used to associate themselves together, to form *Companies*, and to unite in *Societies*. *Man a Sociable Creature.*

SOCIETY therefore is a *Property* of *Human Nature*, as consisting of a certain Number of Persons who all agree and combine mutually to conserve, defend, promote, and enjoy one common Interest, according to certain Terms, Orders and Regulations first stipulated and agreed upon mutually by the whole *Society*. *Society, what.*

ACCORDING to this Definition of a *Society*, 'tis plain they may be infinitely various, as they consist of various Numbers of Members, pursue different Interests and Views, and are founded on and regulated by divers *Institutions* and *Laws*. I shall here only take Notice of those Societies which pass under the three following remarkable Denominations, *viz.* (1.) A *Family*. (2.) A *City*; and (3.) A *Republic*, *Commonwealth*, or *Nation*. *The several Kinds.*

A *FAMILY* is an *Houshold* of Persons, or those who live together in *one House*; and are generally of three Sorts of Personages; as, (1.) *Parents*, or those who beget and bear Children, with us call'd *Fathers* and *Mothers*. These are said to be the Stock and Heads of Families. (2.) *Children*, which are begotten and born of the Parents; and as they are *Male* or *Female*, are call'd *Sons* and *Daughters*. (3.) *Servants*, which are those who *serve* or do the *Work* of the *Family*, on Conditions of Advantage or Profit, call'd *Wages* or *Hire*. By the Word *Family* is sometimes *A Family.*

times meant the *Genealogy*, *Pedigree*, *Lineage*, or *Deſcent* of a particular Family from the firſt of the Race, and in this Senſe they are call'd *Kindreds*; but this is foreign to our Purpoſe here, and therefore ſhall paſs it by.

A City. A *CITY* is a Society of People incorporated into a Body; enjoying certain peculiar Privileges, Liberties, and Immunities, living in a large wall'd Town, or the Liberties thereof, where there is a Cathedral Church, and a Biſhop's See; and are all govern'd by the ſame Laws. If the Town be not *wall'd about*, nor hath a *Cathedral* or *Biſhop's See*, it is call'd a *Town Corporate*, or a *Corporation*, but not a *City*, of which there are abundance in *England*. A *City* therefore conſiſts of divers *Families*, and hath the ſame Relation thereto as a *Whole* to its *Parts*.

A Republic or Nation. A *REPUBLIC*, *Commonwealth*, or *Nation*, is a *Multitude* or *Society* of People inhabiting the *ſame Land*, having the *ſame Name*, ſpeaking the ſame *Language*, and enjoying the ſame *Laws*, *Religion* and *Government*: Though the Words *Republic* and *Commonwealth* reſpect the *Form* of Government rather than the *Subject*, or *People*. As *Cities* and *Towns* conſiſt of *Families* or *Houſes*, ſo a *Nation* is made up of *Cities* and *Towns*, as alſo of many *Villages* and particular *Houſes* ſituated over the Face of all the open Country of that *Nation*.

The Requiſites to conſtitute a Society. ALL thoſe *Societies*, as has been ſaid, are *Bodies Politic*, or ſubject to certain Orders, Rules, Laws, and Government; and in order to conſtitute ſuch a *Society* or *Body Politic*, the following Things are neceſſary. (1.) Such a Community or Society muſt conſiſt of Men, or rational, not irrational Beings. (2.) There muſt be a *Plurality* or *Multitude* of them, *viz.* of *Perſons*, *Houſes*, or *Cities*. (3.) They muſt aſſociate and unite together; for they make up this Body not ſeverally, but as join'd together in one. (4.) They muſt enjoy a *Community* or *Participation* of many particular Things, and one general Intereſt, common to the Whole. (5.) It muſt be inſtituted by the general Conſent of a free People, and therefore it is voluntary. (6.) It muſt be juſt and reaſonable; for there can be no honourable and true *Society* or *Commonwealth* of Men bent on wicked Purpoſes; as *Thieves*, *Pirates*, *Conſpirators*, *Murderers*, *ſeditious Perſons*,

Perſons, &c. for they are ſuppoſed to be bound to obſerve certain Rules of eternal Juſtice and Reaſon, and therefore the Things wherein they unite, and the Manner of their uniting muſt be both juſt; and the more they are ſo, the more excellent and perfect the *Commonwealth* and *Ordination* thereof will be.

GOVERNMENT, or that Form and Order of Rules and Laws by which the *Affairs* of *Societies* are adminiſtered, regulated, and directed, is various, according to the Nature of the Society, the Relation of the Members to each other, the Perſon or Perſons who adminiſter the Republic, and the Manner of the Inſtitution. *Government, what.*

A *HOUSE* or *FAMILY* being in Nature prior to all other *Societies*, I ſhall begin with the Government thereof firſt: This in regard of the *Houſe* the *Greeks* call'd *Oeconomy*, and the Arts which deliver'd Rules thereof, they call'd *Oeconomics*; but in regard of the Perſon in whom the Power of ruling and governing the Family was lodg'd, they call'd it *Patriarchy*, and the manner of it *Patriarchal*; becauſe the *Father* of the *Family* being the principal Perſon therein, adminiſtered and governed the Affairs of the Houſe; as the Law and Dictates of Nature and Reaſon directed. *Oeconomy, what.*

OECONOMICS therefore is that Part of *Moral Prudence* which gives Rules and Directions for the due and well ordering and governing a *Family* or *Houſhold* of People, in the Adminiſtration of all the Affairs and Buſineſs pertaining thereto. And as in a *Family* it conſiders a threefold State of Relation, *viz.* that of *Husband* and *Wife*, *Parents* and *Children*, *Maſter* and *Servants*, ſo it lays down and ſupplies ſuch *Laws* and *Rules* as direct the *Conduct*, and ſhew the *Duties* incumbent on each Perſon reciprocally in his reſpective State and Relation. *Oeconomics, what.*

THE firſt of theſe three *relative States* is call'd the *Conjugal* or *Matrimonial* State; becauſe the Relation of a *Husband* and *Wife* commences from their mutual *Contract*, *Covenant*, and *Agreement* to aſſociate, unite, cohabit, and hold a common Participation of the Fortune of Life ſo long as they both ſhall live; which public and ſolemn Action is call'd *Matrimony*. *Conjugal State.*

THE *Laws* which reſpect the Husband, and the *Duties* and *Offices* enjoin'd to be perform'd in regard *The Duties of an Husband.*

of

of the Wife, are as follow: (1.) That he *love* her, and *delight* in her *Company* and *Society* more than in any other Woman's. (2.) That he nourish and ſuſtain her with the beſt their Fortune affords for the Suſtenance of Life and Health. (3.) That he duly perform the Duties of the Marriage Bed, or render to the Wife due Benevolence; and that ever according to the Dictates of Reaſon and Prudence. (4.) That he keep his plighted Faith in allowing her the *ſole Property* and *Uſe* of his Body, and abſtaining religiouſly from all adulterous Commerce with any other of her Sex. (5.) That he teach and inſtruct her in the Duties of Religion, and the more difficult Affairs of Life, when ſhe appears to need it. (6.) That, laſtly, he rule and govern her by the Laws of Prudence and Reaſon, and in ſuch a manner, that more of Love, Humanity and Kindneſs may appear, than of Power and ſovereign Authority. In ſhort, every Act of the *Husband* ſhould be ſuch as might tend to demonſtrate, that he is not willing to ſhew himſelf ſo much her *ruling Lord*, as her *loving Husband*; and more deſirous of her Love, Affection and Eſteem, than her Fear and Submiſſion.

The Duties of a Wife.

THE *Duties* and *Offices* of a Wife towards her *Husband* are, for the moſt part, the ſame as thoſe juſt enumerated of the Husband towards the Wife; but particularly, that ſhe love, honour, and aſſiſt him, not only in bearing Children and educating them, but in taking on her a Part of the Adminiſtration of *domeſtic* Affairs; and moreover, that ſhe be modeſt, chaſte, and ſubmiſſive in all Caſes where the ſuperior Wiſdom and Judgment of the Husband ſhall require it. And on the ſide both of Man and Wife, the Nature of ſuch a ſtrict Conjunction requires that they be mutually Partakers of each other's Fortune, whether proſperous or adverſe, and to comfort each other in their Calamity; and that they ſhould both ſo attemperate their Behaviour and Manners with Prudence, and Wiſdom, as ſhould beſt conduce to Peace, Harmony, and mutual Forbearance; in reſpect of which however it is adjudged moſt becoming the Wife to yield, *Right or wrong*.

The Power of Parents.

WITH regard to the ſecond Relation of *Parents* to *Children*, 'tis evident they, as being their Offspring, are the moſt immediate Subject of *Patriarchal Power*, accord-

according to the moſt antient and holy Inſtitution and Form of Government; by which they are obliged to honour and obey their *Father* and *Mother*, and to obſerve and perform their lawful Commands. And ſince both *Father* and *Mother* concur to the Generation of Children, they have each a Property in and Power over them. But this Power extends not to Life and Death, though in Caſes ever ſo criminal, but only to proper Correction and Caſtigation; for when Children are grown adult, and pertinaciouſly contemn the paternal Care, Power, and Government, they are to be deliver'd up to the ſuperior Power of the *City*, or *Nation*, if any ſuch be extant; if not, they are to be expell'd and abdicated their Father's Houſe.

The Duties of Parents.

THE *Duties* of *Parents* concerning their Children are principally ſuch as theſe, *viz.* (1.) That they *feed*, *cloath* and *nouriſh* them while young and helpleſs, in a proper Manner. (2.) That they take Care to *educate them in all uſeful Knowledge and Learning*. (3.) That they bring them up in the *Nurture and Admonition of the Lord*, that is, in the *Chriſtian Religion*. (4.) That they *imbue their Minds with the Principles of Virtue and Morality* while young and flexible, and *inure them gradually* to the *Practice* thereof. (5.) That they *infuſe* and *implant* in their Minds an *early Senſe* of *Moral Evil*, and bring them to an *habitual Abhorrence* of all *Vices* and *Immoralities*. (6.) That they give them *ſuitable Reproof*, *Correction*, and *Reſtraint*, for and in Conſideration of all vicious, ungodly and vain Practices, and by all means poſſible cauſe them to forſake the ſame. (7.) That they *teach and inſtruct*, or cauſe them to *learn*, *ſome honeſt Art*, *Faculty*, or *Imployment* for their *future Dependence* and *Support* of *Life*. (8.) That they give them *wholeſome and prudent Advice in all difficult and momentous Affairs*, as in chuſing an *Husband* or *Wife*, *Profeſſion* of *Religion*, *Bargaining*, &c. though in theſe Caſes the Parent has no *Power* or *Right* to *oblige* the Child to fulfil his Will or Deſire. (9.) Laſtly, that they take all proper Care to *augment*, *improve*, and *promote* their Children's Fortune and Proſperity in every reſpect.

The Duties of Children.

THE *Duties* of *Children* towards their Parents are, (1.) That they *love*, *honour*, and *obey* them in all their civil and reaſonable Commands. (2.) That they ſerve them with all Readineſs and Submiſſion in the Buſineſs

of their Calling. (3.) To uſe all *reverent, ſubmiſſive, dutiful Language* to them on all Occaſions; and to refrain Contradiction, and Obloquy of every ſort. (4.) To deport themſelves always with a *reſpectful, filial, and dutiful Behaviour*, ſuch as may expreſs a Senſe of the *Obligation* they are under to their *Parents*, as the immediate *Authors* of their Beings, and all proper Sentiments of *Gratitude* and *Honour* which naturally reſult from ſuch a Conſideration. (5.) To do nothing without their *Advice* or *Counſel*, at leaſt not contrary thereto, in Matters merely *human*, and of *civil Concern*. (6.) In Matters of Religion they ought to keep a Conſcience void of Offence towards God and Man, and to profeſs that Form which they judge to be moſt pure and agreeable to the Inſtitutions of Chriſt, whether their *Parents* profeſs the ſame or not; for in this Caſe they are obliged to obey *God* rather than *Man*, though a *Father* or *Mother*. (7.) They ought to bear with a becoming Patience the *Oddities, Perverſities, Vices*, &c. *Imperfections* (if any) of their *Parents*; and endeavour to *hide* and *extenuate*, and not *expoſe* them to the World. (8.) To *ſupport* and *ſuccour* their Parents in caſe of *old Age, Poverty*, or other Circumſtances which may require their Aſſiſtance. He muſt be an *unpardonable Wretch*, a Monſter of human Nature, who can ſee his *Father* that *begat* him, his *Mother* that *bare* him, live in the Want of any thing in his Power to ſupply them with.

Of Maſters and their Power.

THE third and laſt kind of *Relation* in a *domeſtic Society* is that of *Maſters* and *Servants*. In all Ages *Maſters* of Families have found it not only convenient but neceſſary to procure *Servants* to take care of and perform the laborious Part of their *Domeſtic* Affairs and Buſineſs. And on the other hand, Neceſſity and Want have obliged many to apply themſelves to others, and agree to ſerve them for *Food, Raiment*, or *Money* to procure the ſame and other Neceſſaries of Life, which Conditions are call'd *Wages* or *Hire*. But theſe Things are only to be found in a *Free Nation*; in others, Servants are either *purchaſed with Money*, and are then call'd *Slaves*; or are taken in *War*, and are then call'd *Captives*; and their Condition a *State* of *Slavery* and *Captivity*. In a free Country, as *England*, the Condition of Servants is ſo voluntary, and, with reſpect to Time and Maſters, ſo much in their *Choice* and *Power*, that it can hardly be call'd

call'd a State of *Thraldom* or *Servitude*, but rather of *free Service*, if the Expreſſion can be allow'd.

The Duties of Maſters.

THE *Office* and *Duties* of *Maſters* towards *Servants* are (1.) To be *mild* and *gentle* in their Behaviour to them. (2.) To be *reaſonable* in their *Demands* and *Injunction* of *Services* upon them. (3.) To allow them proper *Diet*, *Reſt*, &c. neceſſary to enable them to perform their Work and Service. (4.) To give them *wholeſome Advice* and *Inſtruction*, and to *reprove* them for *Vice*, *Follies*, for *Negligence* in Buſineſs, &c. (5.) To *teach* them *fully*, and without *Reſerve*, the *Art* and *Myſtery* of the Trade or Buſineſs they are to learn. (6.) To *pay them juſtly and duly* the *Wages* or *Hire* agreed for when it becomes *due*, or when after the *Servant* ſhall demand it. (7.) In all Reſpects a *Maſter* ought to do to his Servant as he himſelf would chuſe to be dealt with, were he in a *Servant*'s Circumſtances.

The Duties of Servants.

THE Duties of a *Servant* to his *Maſter* or *Miſtreſs* are very obvious; as, (1.) To obey them well in all Things of a civil Concern. (2.) To be *diligent* in Buſineſs, not *ſlothful*, nor ſerving with *Eye-ſervice*. (3.) To be *faithful* and *truſty* in the Diſcharge of all the Truſts repos'd in them, and in executing all Orders and Commands. (4.) To be *honeſt* and *juſt*, not purloining or ſquandering away their Maſters Goods clandeſtinely. (5.) To be *quiet*, *peaceable*, and *patient* under Reproof, and to avoid all *Obloquy* and *Recrimination*. (6.) In ſhort, they ought ſo to demean themſelves as they would expect *Servants* ſhould do, were they in the Maſter's Place. Thus much may ſuffice for *Oeconomics*, or *Houſhold Government*.

Of Civil Societies.

THE *ſecond Sort of Society* mention'd, was that of *Citizens*, or People living together in *Cities* and *Towns Corporate*. And becauſe this is a *collective Idea*, or conſiſting of divers *ſimple Societies* or *Families*, 'tis impoſſible but that a very different *Form* and *Order* of *Laws*, *Rules*, and *Government* ſhould be here inſtituted and exerciſed, from *Oeconomy*, or that of a *Family*; for of various *Families combined* and *united*, there muſt needs ariſe a *compounded Intereſt*, and *various Relations*, which require very different Methods to ſettle and regulate, than do thoſe of a ſingle Family.

Polity and Politics.

AND ſince the *Greeks* (from whom we receive the *Terms* and *Art* of *Government*) call'd a *City*, in their

Tongue, *Polis*; therefore the Government was call'd *Politia*, or *Polity* and *Policy*; and thus Books which treat thereof, or the Art itself, are call'd *Politics*; and those who are skill'd therein, *Politicians*.

A Republic or Common-wealth, whence.

Also since a *Nation* or *Commonwealth* is but a Spot of Earth, or a Land wherein are many of those *Cities* and *Towns*, united in a common Interest, and order'd and govern'd by the same Laws, it came to pass, that the Rule and Governance of any Nation or Land came to be call'd the *Policy* of that Land or Country; and because of the *Common-weal* or *Good*, or *public Affairs*, respected and conserved thereby, it was indifferently call'd a *Common-wealth* or *Republic*; and hence they who *dispense* the *Laws* are also said to *administer the Republic* of the same Country.

Diversity of Government.

Now since *Policy* or *Government* necessarily implies a *State* of *Superiority* and *Subjection*; for no one can properly be said to *rule* or *bear sway*, or *govern*, unless there be some who are *ruled*, or *Subjects* of their *Government*; so necessarily also follows a Diversity of *Governments* or *Policies*, according to the *Regents* or Persons governing, the *Societies* governed, and the *Manner* of *Acquisition* and *Administration* of the *Supreme Power*.

With respect to the *first Diversity* of *Government* arising from the *Regents*, or Persons exercising the *Supreme Power*, it is distributed into the following Kinds. (1.) *Theocracy*: *Theocracy*, when People are under the immediate *Rule*, *Government*, and *Direction* of *God* himself, in *Civil*, as well as *Religious Affairs*; and such a State is call'd *Theocratical*, as was that of the Children of *Israel* originally under *Moses*, *Joshua*, and the *Judges*, till they changed it for that of *Monarchy*, to be like other Nations about them. (2.) *Monarchy*: *Monarchy*, when one Person alone doth govern, who is therefore call'd a *Monarch*, and his Government is said to be *monarchical*. If he be a good *Prince*, he is called *King*; if a bad and unjust one, he is called a *Tyrant*, and his Reign *tyrannical*. (3.) *Aristocracy*: *Aristocracy*, when a few of the best and chief of the People rule and govern jointly, the Administration of such a *Republic* is call'd *Aristocratical*. If these Men are only a *few* of the *richer Sort*, and have obtain'd the *Government* by *Force*, and not *Right*, their *Regency* is then call'd, (4.) *Oligarchy*: *Oligarchy*, and the Manner in which they obtained it

is

is call'd *Uſurpation*; and they themſelves *Uſurpers*.

(5.) *Democracy*, which is when the *Multitude* doth rule; and ſuch a *State* of *Adminiſtration* is ſaid to be *Democratical*. Here the Fathers of Families aſſemble in *Council*, make *Laws*, ordain *Statutes*, and exert all other Acts of *Imperial Power* and *Authority*. *Democracy.*

With regard to the *Societies* or People, in and over whom the Government is exerciſed, there will ariſe *Policy* of a fourfold Denomination. (1.) *Oeconomics*, or that of a *Family*. (2.) *Politics*, which, properly ſo call'd, is that of a *City*. (3.) *Republic*, that of a *Country*; and, (4.) *Empire*, which is the higheſt and moſt extenſive Degree of *Imperial Power* and *Sway*; as having not only *Families* and *Cities*, but *Nations* and *Kingdoms* ſubject thereto; and the Perſon who bears this moſt *Imperial Sovereignty*, is call'd *Emperor*; as the *Emperor* of *China*, the *Indies*, *&c.* *Policy fourfold.*

As to the Manner of *acquiring* and *adminiſtering* the Government, if it be juſt and righteous, the Government is then ſaid to be *free*, and the People in a State of Liberty, as having all their public Affairs order'd and adminiſter'd according to the Rules of *Right* and *Equity*, which is all they can deſire of *Governors*. But if the Government be obtain'd by *Force* and *Violence*, and exerciſed by the arbitrary Will and Pleaſure of the *Ruler*, without conſulting or regarding the *Will*, *Requeſt*, *Right*, or *Good* of the People, ſuch a State is call'd *Tyranny*, a State of *Slavery*, an *arbitrary* and *deſpotic Government*; and the People are ſaid to be (not *govern'd*, but) *tyranniz'd* over and *enſlav'd* by *arbitrary Power*. *Of the Acquiſition and Adminiſtration of Government.* *Tyranny.*

By what has been hitherto defined, it appears that the *Civil State* or *Government* of *Great Britain* is not a *Simple Polity*; that is, it is not a *Monarchy*, *Ariſtocracy*, or *Democracy*, ſingly conſider'd, but is rather a *Compound* of them all together; for tho' we have one *Supreme Ruler*, whom we call our *King*, yet he *reigneth not by himſelf*, nor is he *abſolute*, but he governs by, and in Conjunction with the *great Council* and *Aſſembly of the Nobles* of the Land, which we call the *Parliament*. Nor is even this *auguſt* Aſſembly *uniform* or *independent*, for it conſiſts of two very different Parts, one of the *Higher Nobility* both *Temporal* and *Spiritual*, call'd the *Houſe of Lords*; the other Part is made up of the *Lower Nobility* or *Commonalty*, the *Knights* and *Polity of* Great Britain. *The Parliament.*

Burgeſſes of *Shires* and *Borough* Towns, and are call'd the *Houſe of Commons*, or the *Lower Houſe*.

The Dependency thereof.

Now the *Higher Houſe* receiveth not, nor meddleth with any of the *public Affairs* of the Nation preſented by *Bills*, till thoſe Bills have firſt paſs'd a Hearing and Examination in the *Lower Houſe*, and have obtained their *Conſent*. *Laſtly*, this *Lower Houſe* is entirely *dependent* on the *common People*, or *Populace*; for the Members thereof are choſen *by them*, to act *for them*, as their *Repreſentatives for a ſhort Time*; and if during that Parliament they act not according to the *People's Requeſt*, and what they think conducive to the Public Good, they reject them at the next general *Election* of Members of Parliament, and chuſe others of whom they have a better Opinion, and think will prove more faithful, wiſe, and worthy of the *important Truſt*.

Now ſince the *common People* chuſe the Members of *one Part* of the *Great Council* of the Land; and ſince the *other Part* thereof, though greater in *Dignity*, can receive no *Addreſs of the People*, or make any *Law* without their *Conſent*; and, *laſtly*, ſince no Bill is an *Act* of *Parliament*, *Ordinance*, *Statute*, or *Edict* of *Law*, tho' both Houſes have conſented thereto, till the *King*, ſeated on the *Throne of State*, ſhall give his *Royal Aſſent*, and *ſanction* it with the *great Seal* of *England*; I ſay, conſidering all this, 'tis evident the *State* or *Polity* of *England* is compounded of the three *Simple Polities*, *Monarchy*, *Ariſtocracy*, and *Democracy*, and may be call'd a *Monarchico-Ariſtocratico-Democratical* Government; and conſequently better than either of them *ſingly* or *alone*, as was before obſerv'd of our *Language*.

Of the King of Great Britain.

The *MONARCH* or *KING* of *Great-Britain*, tho' he be not in all Reſpects abſolute, yet his Dignity and Power is very great and extenſive. For, (1.) His *Supremacy* and *Sovereignty* has the *Dignity* and *Honour* of whatſoever Things belong to *ſupreme Magiſtrates*; as *Crowns*, *Scepters*, *Purple Robe*, *Golden Globe*, and *Holy Unction*; and the *Crown* of *England* has been long ſince declared in Parliament to be an *Imperial Crown*. (2.) He acknowledges only Precedence to the *Emperor*. (3.) He owns no *Superiority* to the *Biſhop* of *Rome*. (4.) He hath the ſupreme Right of Patronage thro' all *England*, call'd *Patro-*

nage

nage Paramount. (5.) The *King* is *ſupreme Judge*, or *Lord Chief Juſtice* of *England*, and the *Fountain* whence all Juſtice is ſuppoſed to be derived.

THE *King's Power* and *Prerogative* are very extraordinary; for (1.) He alone, without Act of *Parliament*, hath Power to *declare War*, *make Peace*, *Leagues* and *Treaties*, *ſend* and *receive Ambaſſadors*, to give *Commiſſions* for levying *Men*, *Arms*, *Money*, for the Purpoſes of *War* and *Peace*, &c. (2.) By his *Royal Prerogative*, of his mere *Will* and *Pleaſure*, he can *convoke*, *adjourn*, *prorogue*, *remove*, and *diſſolve Parliaments*. (3.) He may refuſe his *Royal Aſſent* to any Bill which has paſs'd both Houſes, without giving his *Reaſon*. (4.) He alone hath the *Choice* and *Nomination* of all *Commanders* and *Officers* at Land or Sea; of all *Magiſtrates*, *Counſellors*, and *Officers* of State; of all *Biſhops*, and other Eccleſiaſtical Dignitaries; of beſtowing all *Honours* on the *Higher* and *Lower Nobility* of *England*. (5.) He hath the Power of determining *Rewards* and *Puniſhments*, can *pardon Crimes* and *remit* the *Penalties*. (6.) By his *Letters Patent* he may erect new *Univerſities*, *Colleges*, *Hoſpitals*, *Schools*, *Fairs*, *Markets*, *Foreſts*, *Chaſes*, &c. (7.) He only gives *Patents* or *Briefs* to collect the *charitable Benevolences* of the People, in caſe of *Loſſes*, &c. (8.) No *Proclamation* can be made but by the *King*. (9.) He is the *Guardian* of *Ideots* and *Lunatics*, the *Receptacle* of all Eſtates when no *Heir* appears, which then *revert* or *eſcheat* to the *King*. (10.) All *Treaſure Trove*, (or *Monies*, *Goods*, &c. loſt, and the Owners unknown) belongs to the *King*. All *waſte Ground* and *Lands* recover'd from the *Sea*; all Lands of ſuch *Aliens* as die before *Naturalization*; all *Mines* of *Gold* and *Silver*, all *royal Fiſhes* and *Fowls*, belong to the *King*. (11.) He is deem'd by the Laws God's *Vicegerent*, and therefore is ſuppoſed to have no *Imperfection*. No *Non-Age* or *Minority* is allow'd in the *King*; yea, the Law attributeth a Kind of *Perpetuity*, not to ſay *Immortality*, to the *King*; for he being a *Corporation* of himſelf, lives for ever, all *Interregnums* being unknown in *England*. (12.) In the *Church* his *Power* and *Prerogative* are extremely conſpicuous; he alone hath the *Patronage* of all *Biſhopricks*, and none can be choſen *Biſhop*, but whom he firſt nominates by his *Congé d'Elire*; he hath Power

His Power and Prerogative.

to call or convene a *National* or *Provincial Synod*, to preside as *Head*, and with the Consent thereof to make *Canons* and *Conſtitutions*; to inſtitute *Ceremonies*, to correct *Hereſies*, *Schiſms*, &c. and abundance of other *Prerogatives* belong to, and are enjoy'd by the *King* of *England*, as *Supreme Prince* and *Prieſt* of his *People*.

His Title. THE *Title* of the *King of England* is, *By the Grace of God, of* GREAT-BRITAIN, FRANCE, *and* IRELAND, *King, Defender of the Faith.* The Title of *Moſt Chriſtian King* was given to *Henry* VIII. by the *Lateran* Council, tho' uſed before by *Henry* VII. The Title of *Grace* was given to the *King* about the Time of *Henry* IV; *Excellent Grace* to *Henry* VI; *High and Mighty Prince* to *Edward* IV; *Grace*, and ſometimes *Highneſs*, to *Henry* VII. To *Henry* VIII. firſt *Highneſs*, then *Majeſty*; and now *Sacred Majeſty*, or *Moſt Excellent Majeſty*. In ſpeaking to the *King*, is uſed *Sir*, or *Your Majeſty*; and the *King* of *England*, ſince the Time of King *John*, ſtiles himſelf *Nos*, *We*, in the Plural Number, in his public *Inſtruments* and *Letters*.

The Prince of Wales. THE *eldeſt Son* of the *King of England* is born *Duke* of *Cornwal*; afterwards he is created *Prince of Wales*, a Title firſt given by *Edward* V. to his *eldeſt Son*. Since the Union of *England* and *Scotland*, his Titles are, *Prince of Great-Britain*, more commonly *Prince of Wales*, *Duke of Aquitain* and *Cornwal*, *Earl of Cheſter* and *Flint*. He is reputed, in our Law, as the ſame Perſon with the King. The preſent *Prince* is his *Royal Highneſs* FREDERIC LEWIS, Prince of *Brunſwick*, born at *Hanover*, *January* 30, 1706; and on *April* 27, 1736, he was married to the Excellent Lady *AUGUSTA*, Princeſs of *Saxe-Gotha*, in the Circle of *Upper Saxony*, in *Germany*.

Of the Great Officers of the Crown. NEXT to the *King* and *Princes of the Blood*, are reckon'd the *Great Officers of the Crown*, whereof there are Nine; as follow.

The Lord High Steward of England. THE *LORD HIGH-STEWARD* of *England*; he was formerly the higheſt Officer under the King; and his Power was ſo exorbitant, that it was thought too much to be truſted any longer in the Hands of any Subject. The laſt who had a State of Inheritance in this high Office was *Henry* of *Bullingbrook*, afterwards

wards King of *England*; ſince which time they have been made only occaſionally, as to *officiate* at *Coronations*, *Arraignment of Peers*, &c. which when over, he openly breaks a White Staff in his Hand, and ſo his Office ends.

THE *LORD CHANCELLOR*, or *Lord High Chancellor*, is, at preſent, the higheſt Perſon in the Kingdom next after thoſe of *royal Blood*, in *Civil Affairs*; ſo call'd, becauſe all *Patents*, *Commiſſions*, *Warrants* coming from the King, and peruſed by him, are ſign'd, if well; or *cancelled*, where amiſs. His Office is to keep the King's *Great-Seal*, to moderate the *Rigour of Common Law*; to judge according to *Equity*, *Conſcience*, and *Reaſon*; to beſtow all Eccleſiaſtical Benefices in the King's Books under 20 *l. per Annum*. He is ſworn to do *Right* to all People, to *counſel the King truly*, to keep ſecret the King's Counſel, not to ſuffer the Rights of the Crown to be diminiſh'd, *&c.* This *High Office* is held during the *King's Pleaſure*; the *Salary* is above 7000 *l.* *Lord High Chancellor.*

LORD HIGH-TREASURER of *England* is the third *Great Officer* of the Crown. It is conferr'd by the Delivery of a Staff to him by the King, and is held during the King's Pleaſure. His *Office* is to have the *Charge* and *Government* of all the *King's Revenues* kept in the *Exchequer*: He is *Superintendent* over all the *Officers* employ'd in collecting the *Impoſts*, *Cuſtoms*, and *Tributes*, &c. belonging to the *Crown*. He hath the Gift of all the Officers of the Cuſtoms in all the Ports of *England*. He, in Commiſſion with others, lets Leaſes of all Lands belonging to the *Crown*. His *Salary* of late was 8000 *l. per Annum*. *Lord High Treaſurer.*

THE *LORD PRESIDENT* of the King's *Privy Council* is the fourth *Great Officer*; his Office is to attend upon the King, to propoſe Buſineſs at the *Council-Table*, and to report to the King the Tranſactions there. This *Office* is held by *Patent*, during the King's Pleaſure. *Lord Preſident.*

LORD PRIVY-SEAL is the fifth *Great Officer*, under whoſe Hands paſs all *Charters* and *Grants* of the King, and *Pardons* ſign'd before they come to the *Great-Seal* of *England*; with divers other Matters which do not paſs by the *Great-Seal*. He is of the King's *Privy-Council*. His *Salary* is 1500 *l. per Annum*. *Lord Privy-Seal.*

THE

Lord Great-Chamberlain of England.

THE *LORD GREAT-CHAMBERLAIN* of *England* is the sixth *Great Officer* of *State*, and is of great *Antiquity*; to him belongs *Livery* and *Lodging* in the King's Court. He presents to the King on the *Coronation-Day* all his *Robes*, and other Parts of *Royal Attire*, as also the *Sword*, *Scabbard*, the *Crown*, and *Gold* to be offered by the King, &c. On such a Day he hath forty Ells of *Crimson Velvet* for his own *Robes*. To him belongs the Care of providing all Things in the *House of Lords* in the Time of *Parliament*; also the Government of the whole *Palace* of *Westminster*. He issues out Warrants for furnishing *Westminster-Hall* against *Coronations*, and *Trials* of *Peers*, &c. The *Gentleman-Usher*, *Yeoman-Ushers*, and *Door-Keepers* are under his Command. He disposes of the *Sword* of *State* to what Lord he pleases to be carried before the King, and goes himself on the Right-Hand of the *Sword* next the *King's Person*, and the *Lord Marshal* on the Left. On all solemn Occasions the Keys of *Westminster-Hall*, *Court of Wards*, and *Court* of *Requests*, are deliver'd to him. He is not to have *Precedence* of *Dukes*, but according to his *Creation*.

Lord High-Constable of England.

THE *LORD HIGH-CONSTABLE* of *England* is the seventh *Great Officer* of the Crown; whose *Power* and *Jurisdiction* was antiently so great, that after the Death of the Duke of *Buckingham* 1521, it was thought too much for any *Subject*; and therefore since that time this *Officer* is created only on Occasions of *Coronations*, *Trials by Combat*, &c. His Power and Authority is the same with the *Earl-Marshal*, with whom he sits Judge in the *Marshal's-Court*, and takes Place of the *Earl-Marshal*.

Earl Marshal of England.

THE *EARL-MARSHAL* of *England* is the eighth *Great Officer* of the Crown. He is an *Earl* by his *Office*, whereby he takes Cognizance of all Matters of *War* and *Arms*, determines Contracts concerning *Deeds* of *Arms* out of the *Realm* upon Land, and of *War* within the *Realm*, which can't be determin'd by *Common Law*; he formerly had several Courts under him, but now only the *Marshalsea*. This Office has been long Hereditary in the present House of *Norfolk*; the first being *Earl-Marshal* in 1553. But the present Duke of *Norfolk* being a *Papist*, is uncapable of the Office, though he is allow'd the

Honour,

Honour, and officiates by his *Deputy* the *Earl of Effingham.*

THE *LORD HIGH-ADMIRAL* of *England* is the ninth and last *Great Officer* of the *Crown*. He is entrusted with all *Maritime Affairs*, as well in respect of *Jurisdiction* as *Protection*. He hath the Government of the *King's Navy*, and the Power of *Decision* in all *Cases Maritime*, as well *Civil* as *Criminal*; and of all Things done upon or beyond the *Seas* in any Part of the World, upon *Sea-Coast* and *Rivers* near the *Sea*. He hath Power to commissionate a *Vice-Admiral*, *Rear-Admiral*, and all *Sea-Captains*, and other *Officers* at Sea. To him belong all *Penalties*, *Amerciaments*, Goods of *Pirates*, *Felons*, &c. as also all *Stray-Goods*, *Wrecks* at Sea, *Deodands*, &c. all great Fishes, as *Sea-Hogs*, and all *Royal-Fishes*, except the *Whale* and *Sturgeon*. *Lord High-Admiral of England.*

THESE are the great *Streams* of *Government*, *Policy*, and *Rule*, which flow from the original Fountain, the *King*, to the *common People* of the Realm; amongst whom it subdivides, in various ways, into lesser *Currents* and *Rivulets* of *Power* and *Authority*; by which means our *Commonwealth* is (or at least might be) enrich'd and fertiliz'd by a seasonable and uniform Communication and Flowing of the Waters of *Judgment*, *Equity*, and *Truth*.

THE *Great Courts of Judicature*, *Civil* and *Military*, are as follow. *Of the Great Courts of Judicature.*

THE *PRIVY-COUNCIL*; this is that *August* and *Honourable Assembly*, by which the *King* is *advised* and *counsel'd*; and which consults for the *public Good*, *Honour*, *Defence*, *Safety*, and *Benefit* of the Realm; not meddling with Matters which may be determin'd by the *known Laws* and *ordinary Courts of Justice*; but Matters of *Complaint*, and *sudden Emergencies*. The Members of this honourable Council are such as the King of his own free Will and Pleasure shall chuse, and are generally of the *highest Rank*, and eminent for *Wisdom*, *Courage*, *Integrity*, &c. They sit at Council-Board, when his *Majesty presides*; and at all Debates the *lowest* delivers his Opinion first, and the King last of all declares his Judgment, and thereby determines the Matter of Debate. *Privy-Council*

THE most *High*, *Grand*, and *Honourable Court*, in which the most *supreme* and *absolute Power* of the Realm *The Parliament of England.*

Realm of *England* doth conſiſt, is the *PARLIAMENT*. This *High Court* or *Aſſembly* conſiſts of two Parts or Houſes, call'd the *Higher* and *Lower Houſes* of *Parliament*. The Members hereof are of three Sorts, *viz.* (1.) The *Peerage* and *Barony*, who repreſent the higher Part of the *Commonwealth*; (2.) The *Knights*, *Eſquires*, and *Gentlemen*, who repreſent the lower Part; and (3.) *Biſhops* or *Prelates*, who repreſent the *Clergy*; over all which the *King* himſelf preſides.

How aſſembled

The *Parliament* is aſſembled or ſummoned by Virtue of the King's Writs, commanding the *Peers* and *Prelates* to appear at ſuch a Place at ſuch a Time, and the *Sheriffs* of the Counties to ſummon the People to elect two *Knights* for each *County*, two *Citizens* for each *City*, and one or two *Burgeſſes* for each *Borough*, according to *Statute*, *Charter*, or *Cuſtom*. No Man can vote for a *Knight* of the *Shire* who is not poſſeſs'd of 40 Shillings *per Annum* Freehold Eſtate. None can legally ſit in Parliament till he is of the full Age of 21 Years. The Place of Meeting is in the King's antient Palace of *Weſtminſter*; the *Lords* in one Room, and the *Commons* in another below them. The *King*, *Lords*, and *Commons*, muſt all, or the greateſt Part, agree to the *making* of *Laws* and *repealing* them. In order to this, a *Bill*, which contains the Form of the Matter propoſed, is preſented to one of the Houſes, who either approve it, and ſend it to the other Houſe for their Approbation; or elſe they reject it, and ſo it proceeds no farther that *Seſſions*. When a Bill has paſs'd thro' both Houſes, with Conſent, a *Committee*, or a certain Number of the Members of either or both Houſes (not leſs than eight) is appointed to frame the Laws upon ſuch Bills as are agreed upon, which are afterwards ratified by the whole Houſe; and whatſoever is thus approved, conſented to, ratified, and ſanction'd by the *King*, *Lords*, and *Commons* in *Parliament* aſſembled, is call'd an *Act of Parliament*, a *Statute* and *Ordinance*, a *Rule* and *Law* of the *Land*; and is by the Subjects to be eſteem'd *juſt* and *good*, and to be obeyed.

King's-Bench.

THE *KING'S-BENCH* in *Weſtminſter-Hall* is, next to the *Parliament*, the higheſt Court in *England* at *Common-Law*; in which are handled the *Pleas of the Crown*, or all things which concern the *Loſs of Life*

Life or *Member of any Subject*, as also all *Treason*, *Felonies*, *Breach of Peace*, *Oppressions*, *Misgovernments*, &c. In this Court are four grave reverend *Judges*, whereof the first is call'd the *Lord Chief Justice of the King's Bench*, whose *Power*, and *Jurisdiction* of the Court is very great over all *England*. His *Salary* from the King is 2000 *l.* that of the other *Justices* 1500 *l.* *per Annum* each.

THE *HIGH COURT* of *CHANCERY*, because it is design'd to mitigate the *Rigour* of the other Courts of Judicature, is call'd the *Court of Equity*; and is the Original of all other Courts. The *Judge* of this Court is but one, *viz.* the *Lord Chancellor* or *Lord-Keeper* of the *Great Seal* of *England*, whose *Sentence* is definitive without a *Jury* of twelve Men. The *Judge* hath twelve *Assistants*, call'd *Masters of Chancery*, the first of which is *Master of the Rolls*, a Place of great Dignity. Another Officer, who continually attends the *Lord Chancellor*, is the *Clerk of the Crown*, an *Office* of very high Importance. Besides which there are many other *Offices* and *Officers* in this Court; which render Suits so very *chargeable* and *tedious*, that a Person is little beholden to this *Court* for more than the *fine* (not to say *false*) *Name* that it bears. *Court of Chancery.*

THE *COURT* of *COMMON PLEAS* is next, and is so call'd, because therein are debated the *usual* and *common Pleas* between *Subject* and *Subject*, according to the strictest Rules of Law. None but *Serjeants* at Law may plead in this Court. The *Chief Judge* is call'd *The Lord Chief Justice of the Common Pleas*; besides which there are commonly three *inferior Judges*. This Court is held in *Westminster-Hall*. *Court of Common Pleas.*

THE *COURT* of *EXCHEQUER* is next for the Execution of the Laws. In the *Exchequer* are held two *Courts*, one of *Law*, the other of *Equity*, in the *Exchequer Chamber*. In this Court may sit the *Lord Treasurer*, the *Chancellor of the Exchequer*, the *Lord Chief Baron*, three other Barons of the *Exchequer*, and the *Cursitor Baron*. In this Court are tried all Causes relating to the King's *Treasury* or *Revenue*, as touching *Accompts*, *Disbursements*, *Customs*, and all Fines imposed on any Man. *Court of the Exchequer.*

THE *COURT* of *ADMIRALTY* is the Principal or Supreme of the Courts held by and under the *Lord High Admiral*; it takes Cognizance of all *Court of Admiralty.*

all Affairs *Civil* and *Military* on the Seas, which are within the *Juriſdiction* of the Common Law: Therefore the Proceedings in this Court, in all *Civil Matters*, are according to the *Civil Laws*, and run in the Name of the *Admiral*, and not of the *King*, as in *Common Law*. In this Court he has a *Lieutenant* call'd *Judge of the Admiralty*, who is commonly ſome learned Doctor of the *Civil Law*.

THESE are the Great and High *Tribunals*, *Benches*, or *Courts* of *Judicature* eſtabliſhed in *England* for the public Adminiſtration of *Juſtice* and *Equity*.

Of the Government of Counties.

FOR the *Government* of the ſeveral *Counties* or *Shires* in *England*, the King has deputed and commiſſioned ſeveral *Officers* with Power and Authority to put in Force and execute the Laws upon the Subject.

Juſtices of the Peace.

These are (1.) The *Juſtices of the Peace*, whoſe Office it is to charge and keep the *Peace* of the County, and to examine and commit to Priſon all who break or diſturb the ſame, and diſquiet the King's Subjects. In order to this, they meet every Quarter at the County-Town, when a Jury of twelve Men, call'd the *Grand Inqueſt* of the County, is ſummoned to appear, who, upon Oath, are to enquire into the Caſes of all *Delinquents*, and to preſent them by Bill *guilty* of the *Indictment*, or *not guilty*; the Juſtices commit the former to Goal for their *Trial* at the next *Aſſizes*, and quit the Innocent. This is call'd the *Quarter-Seſſions* for the *County*.

Sheriffs.

(2.) *Sheriffs of the County*, or the *High-Sheriff*, whoſe Buſineſs it is to execute the King's *Mandates*, and all Writs directed to him out of the King's Court, to impannel Juries, to bring Cauſes and Criminals to Trial, to ſee the *Sentences* both in *civil* and *criminal* Affairs executed, to wait on and guard the Itinerant Judges twice a Year in their Circuits for the Aſſizes. Under the *Sheriff* are various Officers, as *Under-Sheriff*, *Clerks*, *Stewards* of Courts, *Bailiffs* of Hundreds, *Conſtables*, *Goalers*, *Beadles*, &c.

Bailiffs of the Hundred.

(3.) *Bailiffs of the Hundred*, a very ancient Officer, but now of ſmall Authority.

High Conſtable.

(4.) *High-Conſtable* was firſt ordained for the Conſervation of *Peace*, and View of *Armour*: He diſperſes *Warrants* and *Orders* of the *Juſtices of the Peace* to each *Petty-Conſtable*.

Coroners.

(5.) *Coroners* are two in each County, who are to enquire, by a Jury of Neighbours, how, and by whom, any Perſon came by a

violent

violent Death, and to enter it on Record as a Plea of the *Crown*; whence they have their Name *Crowners* or *Coroners*. (6.) The *Clerk of the Market*, whose Office is to keep a *Standard* of all *Weights* and *Measures* exactly agreeing with the King's *Standard* in the *Exchequer*, to seal all *Weights* and *Measures* made exactly by the *Standard* in his Custody, and to burn such as are otherwise. He hath a *Court*, and may keep or hold a *Plea* therein. *Clerk of the Market.*

The *Civil Government* of *Cities* is a kind of small independent Policy of itself; for every City hath, by Charter from the King, a *Jurisdiction* among themselves to judge in all Matters *civil* and *criminal*, with this Restraint only, That all *Civil Causes* may be removed from their Courts to the Higher Courts at *Westminster*. To this End they are constituted with a *Mayor*, *Aldermen*, and *Burgesses*, who together make the *Corporation* of the City, and hold a *Court of Judicature*, where the *Mayor* presides as *Judge*. They likewise, when assembled in Council, can make *Laws*, call'd *By-Laws*, for the Government of the City. And here the *Mayor*, *Aldermen*, and *Common-Council* resemble the *King*, *Lords*, and *Commons* in Parliament. *Government of Cities.* *Mayor and Aldermen.*

The *Government* of *Incorporated Boroughs* is much after the same Manner; in some there is a *Mayor*, in others *two Bailiffs*; in others the chief Magistrate is call'd *Portreve*, &c. All which, during their *Mayoralty* or *Magistracy*, are *Justices of the Peace* within their Liberties, and consequently *Esquires*. *Citizens* are not taxed but by the Officers of their own Corporation, every Trade having some of their own always of the Council, to see that nothing be enacted contrary to the Profit of their *Guild* or *Company*. *Of Corporations and Boroughs.*

For the better Government of *Villages*, the Lord of the *Soil* or *Manour* (who formerly were call'd *Barons*) have Power to hold a *Court-Baron* every three Weeks, where Matters are enquired and discussed relating to *Lands*, *Possessions*, *Titles*, &c. *Of Villages,*

And, lastly, in *Parishes* and *Towns* there is a very useful Officer, call'd the *Petty-Constable*, who is to keep the *Peace*, in case of *Quarrels*, to search for, and take up *Rioters*, *Felons*, &c. and keep them in the Stocks or Prison till they can be brought before some *Justice* of the *Peace*; in which Office he is assisted by the *Tithing-Men*. Thus every City, Village, *and Parishes,*

and

and Town hath almoſt an Epitome of *Monarchical* Government, of *Civil* and *Eccleſiaſtical Polity* in itſelf, which, if duly maintained, would render us a happy People, and *Judgment would run down our Streets as a River, and Righteouſneſs like a mighty Stream.*

Degrees of Nobility.

IT now remains, that I only ſpeak a Word or two of the Degrees of *Nobility* in *England*, and Titles of Honour. The Degrees of *Peerage*, or *Higher Nobility* of *England*, are five, *viz. Duke*, *Marquis*, *Earl*, *Viſcount*, and *Baron*.

A Duke.

A *DUKE* is, at preſent, created by *Patent*; his *Mantle* is guarded with four *Guards*; his Title is *Grace*; his *Coronet* hath only *Leaves* without *Pearls*. Out of the King's Preſence he may wear a *Cloth of State* hanging within half a Yard of the Ground; ſo may his *Dutcheſs*, and her Train borne up by a *Baroneſs*. No *Earl* is to waſh in the Preſence of a *Duke* without his Permiſſion.

Marquis.

A *MARQUIS* is created by *Patent*; his *Mantle* is double *Ermin*, three Doublings and an half; his Title is *Moſt Noble*; his *Coronet* hath *Pearls* and *Strawberry Leaves* interchangeably ſet around of equal Height. His *Cloth of State* may reach within a Yard of the Ground, which he muſt not wear in the Preſence of the *King* or a *Duke*. His *Marchioneſs* hath her Train born by a Knight's Wife out of the Preſence of her *Superiors*. No *Viſcount* is to waſh with a *Marquis* but at his Pleaſure.

Earl.

AN *EARL* is created by *Patent*; his *Mantle* hath three Doublings of *Ermin*; his Title is *Right Honourable*; his *Coronet* hath *Pearls* rais'd upon Points, and *Leaves* low between. He may have a *Cloth of State* without *Pendants*, but only *Fringe*. His *Counteſs* may have her Train borne by an *Eſquire*'s Wife out of the Preſence of her *Superiors*, elſe by a *Gentleman*.

Viſcount.

A *VISCOUNT* was firſt created in *England* in the 18th of *Henry* VI. in the Perſon of *John Beaumont*. He is made by *Patent*; his *Title* is *Right Honourable*; his *Mantle* hath two Doublings and a half of plain white Fur; his Coronet hath only *Pearls* ſet cloſe to the *Chaplet*. He may have a *Cover of Eſſay* held under his Cup when he drinks. His *Viſcounteſs* may have her Gown borne up by a *Woman* in Preſence of her *Inferiors*, but elſe by a *Man*.

A *BARON*

A *BARON* is made sometimes by *Writ*, but usually by *Patent*; his Title is *Right Honourable*; he hath two *Doublings* on his *Mantle*, and six Pearls on his *Coronet* upon the Circle. He may have the Cover of his Cup held underneath while he drinks; and a *Baroness* may have her Gown borne up by a *Man* in the Presence of a *Viscountess*. *Baron.*

Besides the common Titles here mention'd, each of those Degrees have more illustrious Titles, as follow: *Their High Titles.*

A *DUKE*, *Most High Puissant and Noble Prince.*
A *MARQUIS*, *Most Noble and Puissant Prince.*
An *EARL*, *Most Noble and Puissant Lord.*
A *VISCOUNT*, *Most Noble Potent and Honourable.*
A *BARON*, *Most Noble and Right Honourable.*

The Title *Lord* is common to all these Degrees.

We come now to the *Lower Nobility*, who are call'd the *Commons* of *England*, and consist of three Degrees, *Baronets*, *Knights*, and *Esquires*. *The Commons of* England.

A *BARONET* is next in Honour to a *Baron*, and is the lowest Degree of Honour that is *hereditary*; they and their eldest Sons at full Age may claim Knighthood. He has Precedence of all *Knights*, except those of the *Garter*, *Bannerets*, and those who are *Privy-Counsellors*. They take place of each other according to the Date of their *Patent*. The Title is *Sir*, and their Wives are *Ladies*. *A Baronet.*

A *KNIGHT* is, according to his Original, a *Military Man*, a *Soldier*, or *Man of War*; but now the Honour of *Knighthood* is conferred for some *Personal Merit* or *Desert*, and therefore dies with the Person, and descends not to his Sons. There are many Orders of *Knighthood*, but in *England* the chief and most honourable is that of the Order of *St. George*, call'd *Knights of the Garter*; next to which are the *Knights Bannerets*, of which there are now none in *England*. *Knights of the Bath* are next in Honour; and then *Knights Batchelors*, which Degree is now given to *Gown-Men*, as Lawyers and Physicians; and sometimes to *Artists*, as it was to that excellent *Mathematician* Sir *Isaac Newton*. *Knight.*

ESQUIRES make the next Degree of the *Lower Nobility*, so call'd of the *French* Word *Escuiers*, *Shield-Bearers*, because they were wont to bear before the *Esquires.*

Prince, &c. in War a *Shield*, *Lance*, or other Weapons, and therefore they are call'd in Latin *Armigeri*, i. e. *Bearers of Arms*. Of this Title are (1.) All the *Eldeſt Sons* of *Viſcounts* and *Barons*, alſo all their *Younger Sons*. (2.) All the Sons of *Earls*, *Marquiſes*, and *Dukes*; and no more by the Common Law. (3.) *Eſquires* of the *King*'s Body, among the *Officers* at Court. (4.) *Eſquires* created by the *King*, by putting about their Neck a *Collar* of SS's, and giving them a Pair of *Silver Spurs*. (5.) Divers in ſuperior Office for *King* or *State*, as *Serjeants* of Royal Offices, *Juſtices* of *Peace*, *Mayors*, *Counſellors* at *Law*, *Batchelors* of *Divinity*, *Law* or *Phyſic*, are all reputed *Eſquires*, or of equal Degree, though none of them really are ſo.

The Gentry of England.

THE *GENTRY* of *England* are the loweſt Degree among the *Lower Nobility*. Theſe are the Deſcendents of *antient Families* who have been always *free*, and never owed *Obedience* to any Man but their Prince, and who have always borne a *Coat of Arms*; ſo that properly none are *Gentlemen* but ſuch as are born ſo: But in *England* the *King* being the *Fountain of all Honour*, he can make a *Gentleman* by *Charter*, or by beſtowing on him ſome *honourable* Employment. *Merchandize* or *Trade* does not deſtroy *Gentility*.

Of

Of JURISPRUDENCE.

JURISPRUDENCE is, according to its *Etymology*, the *Knowledge* of what is *Juſt* and *Right*; being derived of the two *Latin* Words, *Jus*, *Right*; and *Prudentia*, *Skill* or *Knowledge*. It is therefore by ſome defined, *The Art of Right and Wrong, Juſtice and Injuſtice*. By others, *The Knowledge of the Laws, Rights, Cuſtoms, Statutes*, &c. neceſſary for the doing of Juſtice. *Juriſprudence defined. Its Etymology.*

RIGHT (Jus) differs from *Law (Lex,)* (1.) As it is a *Genus* or general Kind, *Law* a *Species* only. (2.) Again, *Right* has Reſpect to the Nature of Things, as well *unwritten* as *written*, but *Law* has reſpect only to the *written* Rules and Precepts of *Right* and *Juſtice*. *Right*, and *Equity* alſo differ, *Right* is the *Whole* of what is required, or may be claimed; *Equity* is that which abates ſo much of *ſtrict Right*, as Reaſon, Goodneſs, and circumſtantial Exigencies ſeem to demand. *Right, how it differs from Law and Equity.*

Right is the Rule of *Juſtice*, which is the Virtue of giving to every one his Due. *Juſtice*, as it is concern'd in *Commerce* or *Government*, is reſpectively diſtinguiſhed into *Commutative* and *Diſtributive*. *Commutative Juſtice* wholly regards the *Prices* and *Value* of Things, and obſerves only the ſimple or arithmetical Proportion of *Commutation*. But *Diſtributive Juſtice*, as exerciſed in *Governing*, is that which appoints *Rewards* and *Puniſhments*; and regards the Proportion call'd *Geometrical*; that is, as the Heinouſneſs of one Crime is to the Heinouſneſs of any other, ſo is the Degree of Puniſhment aſſigned for the former to that Degree thereof which is (or ſhould be) aſſigned for the latter. But where can we find this Proportion of Juſtice obſerved in our *Engliſh* Diſpenſation, where the ſame Puniſhment is decreed for *Theft* and *Murder*, for *Murder ſimply*, or any how *Juſtice, what. Is twofold, Commutative and Diſtributive.*

compounded? Acts, certainly, widely differing in the *Degree* of their *criminal Nature*.

Kinds of Law.

LAW, as it conſiſts of the *written Dictates* of *Right Reaſon*, or the Rules and Precepts fit for the due Ordering and Government of *human Society*, is generally diſtinguiſhed into the following three general Kinds. (1.) The *Law of Nature*. (2.) The *Law of Nations*; and (3.) The *Civil* (uſually call'd the *Common*) *Law*. Theſe are the grand Rules of Action, of which in their Order.

The Law of Nature.

THE *LAW of NATURE* is that univerſal Principle implanted in the original Conſtitution of all ſenſible Beings, whereby they are directed to perform all thoſe Acts which are agreeable to their reſpective particular Natures, and tend to their Well-being in general. This Principle is, in *Mankind*, call'd *Natural Reaſon*; but in *Brutes* and other *Animals* it is call'd *Natural Inſtinct*. From hence reſult all *Natural Affections*, and the Acts of *Procreation*, *Education*, *Conſervation*, and *Defence* of *Life*, in ourſelves and our Young. By this *Natural Right*, every *Animal*, however deſpicable it may appear to us, has an *equal Claim to live*, and enjoy its Being *unhurt*, during the natural Period of its Life. And therefore it does not only ſhew an *inconſiderate*, *cruel* and *ſavage Temper* in Men, when they cauſeleſly put poor Creatures to *Pain*, *Miſery*, or *Death*, or for the ſake of Diverſion or Curioſity; but it is a manifeſt *Breach* and *Violation* of the *Natural Laws* of *Right and Life*, which thoſe *Animals* enjoy, and are to be preſerv'd and defended by, equally with their *human* (or rather *inhuman*) *Tormentors*.

The Law of Nations.

THE *LAW of NATIONS* is the Second great Rule of acting well and juſtly. This conſiſts in whatſoever is done, or approved and appointed to be done by the Wiſdom and Judgment of any *Nation*, Body of *People*, or *Society*, for the due Government and Conſervation thereof; and is always proportionate to the *Exigencies of human Neceſſities*.

FOR *Experience*, *Uſe*, and *Neceſſity* find many things expedient to the Happineſs of living in Society, beyond what the *mere Law of Nature* preſcribes; and therefore Proviſion muſt be made for adjuſting and ſettling all ſuch Caſes and Points as they emerge, by general Acts and Laws ſuitable to the Nature and Genius of the *Commonwealth* or *Society*.

THIS

THIS universal *Law of Nations*, as it respects the general Behaviour and Manners of rational and social Beings, is twofold, *viz.* (1.) *Primary*, and which results from pure *Reason* and *Ratiocination*, and is founded in the very Nature of the human Species. Of this kind are all Acts of *Religion* and *Piety* towards *God* our Creator; *Patriotism*, or *Love* and *Zeal* to promote the Welfare and Happiness of our Country; and all Acts of Obedience to Parents and Magistrates in Children and Subjects. (2.) *Secondary*; which arises from *Use* and *Necessity*, and is constituted by the common Consent of Nations, for their mutual Subsistence and Continuation. According to this, *Nations* at first were distinguished; *Dominion* and *Government* founded; *Wars* decreed; *Treaties* made; and Laws of *Contracts*, *Obligations*, *Servitude*, *Manumission*, &c. were found necessary. By this *Law*, *Lands* and *Counties* are divided and bounded, *Societies* instituted, *Vicinage* of *Dwelling* and *Building* together, by which Means we come to have *Cities*, *Boroughs*, and *Villages*. *This Law is twofold.* *Primary.* *Secondary.*

THE *CIVIL LAW* (the Professors of which are call'd *Civilians*) is the third general Rule of *Justice* and human *Procedure*. *This is what every People ordains and constitutes for itself*, or *which is peculiar and proper to every City*; according to the *Justinian* Definition. So the Law used by the City and People of *Rome* was called the *Roman Civil Law*; thus the *Common Law* of *England*, and the peculiar Laws of *Cities* and *Boroughs* (which are call'd *Municipal Laws*) make the Body of the *English Civil Law*. *The Civil Law.*

FROM the foregoing Account of the three general Kinds of Law, it seems pretty natural to make the Comparison between the Nature of *Law* and a *Tree*. In a common Tree we consider the *Roots*, *Trunk* or Body, and the *Limbs* or Branches. So in the *legal Tree*, the *Root* is the *Law of Nature* diffusely spread thro' all the *Soil* of *Animal Kind*; the *Trunk* or Body is the *Law of Nations*, which immediately springs from the *radical* Law of Nature, and is but one and the same to nearly all Mankind. The *Limbs* or *Branchery* of the *legal Tree* is the *Civil Law* vastly extended, diversified, and branched out into the *Common Laws* of every separate Country, and the *Municipal Laws* of *Cities* and *Corporations*.

The Roman *Civil Law.*

WHEN the *Civil Law* is mention'd absolutely, or without saying of what *City* or *Country*, 'tis usual to understand thereby the *Civil Law* of the *Romans*, which is so called by way of Excellency. A short Account of the Original and progressive Perfection of which may not be unacceptable, perhaps, and here follows.

A short History of it.

ABOUT *A. M.* 3152. *Lycurgus* instituted excellent Laws for the *Lacedemonians* or *Spartans* in *Laconia*; and afterwards, *A. M.* 3400, *Solon* did the same at *Athens*; by which means *Greece* became famous for its Laws; and therefore the *Romans*, (remarkable for their Care of the *Legislature*) about *A. U.* 300. sent three *Legates* to *Athens*, and other Cities of *Greece*, to transcribe and bring home the best of their Laws, for their own Use. After three Years they return'd, and *seven* other learned Men being appointed to join them (from their Number call'd the *Decemviri*) they were invested with Power to regulate the Business or new modelling the Laws. Whereupon they reduced and digested them into ten Tables, and then exposed them to public View, with Liberty for any Person to make Exceptions. Upon the Approbation of the Citizens, a Decree pass'd for the Ratification of the *new Laws*. Some little time after the *Decemviri* (or ten Men) saw Occasion to add two more Tables of Laws to the former ten; and from these *twelve Tables*, as the Source and Fountain of Right, issued all the Streams of public and private Law and Equity, by which the *Commonwealth* was regulated and governed.

The Roman *By-Laws.*

THE *Romans* had also certain By-Laws, besides the *twelve Tables*, as (1.) The *Plebiscita*, which were Laws made by the *Commons*, without the Authority of the *Senate*. (2.) The *Senatusconsulta*, which were Ordinances made by the sole Authority of the *Senate*. (3.) The *Jus Honorarium*, which consisted of the *Edicts* of the *Prætors*, or some chief Magistrate. And (4.) The *Principalis Constitutio*, or Principal Ordinance, which was enacted by the *Prince* or *Emperor*, at the time when the Government was in the Hands of a single Person.

The Laws of twelve Tables.

THE *Laws* of the *twelve Tables* were divided into three Parts. (1.) The first related to the Concerns of *Religion*. (2.) The second Sort to the Right of the *Publick*.

Publick. (3.) And the last to the Right of *private Persons*.

The Roman Civil Laws.

THESE Laws being eſtabliſh'd, Diſputations and Controverſies in the Courts became unavoidable, ſince the Interpretation of theſe Laws was to be founded on the Authority of the Learned. And this Body of Interpretation they eſpecially called the *Jus Civile*, or Civil Law. Beſides, out of all theſe Laws the *Learned* compoſed a Scheme of *Forms* and *Caſes*, by which the *Proceſſes* in *Courts* were directed. Theſe were term'd *Actiones Legis*, or Actions or Caſes at Law.

A ſhort Hiſtory of it.

Reduction of the Roman *Laws into four Volumes.*

THE *Roman Laws* daily increaſing, they at length aroſe to ſuch an exorbitant Bulk, that in the Time of *Juſtinian* there were two thouſand diſtinct Volumes on this Subject. They being therefore thus tedious, and almoſt uſeleſs, he form'd a Deſign of reducing them to a more reaſonable Number and Quantity. Accordingly he ſet his Chancellor *Tribonian* about the Work, *Anno Dom.* 528, which was happily compleated in the compiling the four Volumes or Tomes of the *Civil Law* now extant, and which have ſo much contributed to the Regulation of all the States in *Chriſtendom*. Theſe are the *Digeſt* or *Pandects*, the *Code*, the *Inſtitutes*, and the *Authentics* or *Novellæ*, of which a little in Order.

The Digeſt or Pandects.

THE *DIGEST* is the *firſt* Volume of the *Civil Law*, and was thus named, becauſe its Author (*Tribonian*) hath put or digeſted all Things together, every *Book* and *Title* in its natural Place and Order. This Tome has alſo the Name *Pandects*, as being a *Collection of all* that was material in one hundred and fifty thouſand Verſes of the old Books of the Law. This *Digeſt* was compiled from the Works of twenty-ſeven venerable and eminent old Lawyers, who lived before and after *Chriſt*, even to the time of *Maximinus*. The Tome is divided into ſeven Parts, and they again into fifty Books.

The Roman Civil Law.

Of the Juſtinian *Code.*

THE *CODE* makes the ſecond Volume of the *Civil Law*. It contains twelve Books; was compiled from the Anſwers and Determinations of fifty-ſix *Emperors* and their Councils (many whereof were learned and ſkilful *Lawyers*) eſpecially from the Time of *Adrian* to *Juſtinian* himſelf. It was intended to ſupply the Defects, and illuſtrate ſuch Matters as were

The Laws of twelve Tables.

handled too briefly, obſcurely, or omitted in the *Digeſt*; and therefore contains Things of more Benefit and Uſe to Mankind in general, tho' its Stile is not ſo pure, nor its Method ſo accurate as that of the *Digeſt*, which contains Matters of much more polite, ſubtle, and witty Argument. Beſides the *Juſtinian Code*, there is another call'd the *Theodoſian Code*, from the Emperor *Theodoſius*, who cauſed it to be made; it is of good Uſe, for (as it is ſaid) there is no underſtanding the former without its Help.

The Theodoſian *Code.*

Of the Inſtitutes.

THE *INSTITUTES*, or *Imperial Inſtitutions*, make (according to ſome) the third Volume of the *Civil Law*. It is a Compendium of the *Digeſt* drawn into four Books, and each Book into a certain Number of *Titles*; theſe were appointed by the *Emperor* to be compoſed on purpoſe for the Uſe of *young Students*, that ſo, having the *firſt Elements* of the whole Profeſſion in this ſmall Volume, they might the ſooner gain a competent Knowledge of it, without being diſcouraged by the Largeneſs of the other Volumes. Theſe *Inſtitutes* ought to make a Part of every *Gentleman*'s (I had almoſt ſaid every Man's) Study.

The Authentics

THE *AUTHENTICS* make the fourth and laſt Volume of the *Civil Law*. They are ſo called, as having the *Authority* of the Emperor *Juſtinian*'s own Mouth, being a Body of *new Conſtitutions* ſet out by him after the *Code*. The Volume is divided into nine *Collations* (in the *Latin* Edition) and theſe again are ſubdivided into 168 *Novellæ*, Novels, or new Conſtitutions, each of which conſiſts of ſeveral Chapters.

The Civil Law how received by other Nations.

THESE four Volumes contain the *Jus ſcriptum* or written *Civil Law*, which, where Cuſtom fails, is the grand Standard and Directory of all the States, Kingdoms, and Empires of *Europe*; yet is not receiv'd by any one Nation without ſome Addition or Alteration. For ſometimes the *Feudal Law* is mix'd with it; or *general* or *particular Cuſtoms*; and often Ordinances and Statutes cut off a great Part of it.

THUS, in *Turkey* the *Juſtinian Greek Code* is only uſed. In *Italy* the *Canon Law* and *Cuſtoms* exclude a good Part of it. In *Venice* Cuſtom has almoſt an abſolute Government. In the *Milaneſe*, the *Feudal Law*, and *particular Cuſtoms* bear ſway. In *Naples* and *Sicily* the

the *Conſtitutions* and *Laws* of the *Lombards* are ſaid to prevail. In *Germany* and *Holland* the *Civil Law* is eſteemed to be the *Municipal Law*; but yet many Parts of it are there grown obſolete, and others alter'd by *Canon Law*, or *different Uſage*. In *Friezland* it is obſerv'd with more ſtrictneſs. But in the *Northern* Parts, the *Jus Saxonicum*, *Lubicenſe*, or *Culmenſe*, is prefer'd before it. In *Sweden* and *Denmark* it has ſcarce any Authority at all. In *France* only a Part is receiv'd, and that in ſome Places as a *Cuſtomary Law*; and in thoſe Provinces neareſt *Italy*, the *Municipal written Law*. In *Criminal Cauſes* the *Civil Law* is more regarded in *France*, but the Manner of Trial is regulated by *Ordinances* and *Edicts*. In *Spain* and *Portugal* the *Civil Law* is corrected by the *Jus Regium*, and *Cuſtom*. In *Scotland* the *Statutes* of the *Sederunt*, part of the *Regia Majeſtatis*, and their *Cuſtoms*, controul the *Civil Law*, which elſe is the *Common Law* of this Country. And, laſtly, in *England*, beſides the *Civil Law*, we have divers others; as the *Canon Law*, *Common Law*, *Statute Law*, *By Laws*, *Foreſt Law*, and *Marſhal Law*, of all which more by and by.

Of the Feudal Law.

We can't conclude this Hiſtorical Account of the *Civil Law* without taking notice of the *Feudal Law*, or *Feuds*, which is a Book of *Cuſtoms* and *Services*, which *Subjects* or *Vaſſals* do to their *Prince* or *Lord* for the *Lands*, *Tenures*, or *Fees*, that they hold of him. The Grant of which is call'd the *Feud*, and he to whom it is granted the *Feudatory*.

The Book of Feuds.

This *Book of* FEUDS is now made the fourth Volume of the *Civil Law*, the *Inſtitutes* being reckoned as an additional Part of the *Digeſt*, or firſt Volume. This Part was not of much uſe in the old Emperors Time; ſome refer the Original thereof to *Conſtantine* the Great. The Collectors or Compilers of this Volume were *Obertus de Horto*, and *Giraldus Compagiſtus*, Senators of *Milan*, who drew it partly from the *Civil Law*, and partly from the *antient Cuſtoms* of *Milan*, but without any good Form or Order. The Learned in this Part of the *Civil Law* are call'd *Feudiſts*.

The Subject of the Civil Law.

Having thus diſpatched a conciſe *Hiſtory* of the *Civil Law*, I come now to ſay ſomething of the *Subject* about which it is converſant, and that is threefold, *viz.*

Right of Persons, Things, and Actions.

viz. (1.) The Right of *Persons*. (2.) The Right of *Things*. And (3.) The Right of *Actions*. For all Kind of *Right* (which is the immediate Object of the *Civil Law*) respects one or other of these three Things, viz. *Persons*, *Things*, or *Actions*. Of which a little in Order.

Division of Persons.

With regard to *Persons*, the Law makes several Divisions, as (1.) in respect of *Sex*, they are distinguish'd into *Men* and *Women*. (2.) In regard of *Age*, they are said to be *Infants* till the seventh Year; from thence to twelve in *Women*, and fourteen in *Men*, they are call'd *Adolescents*; and all under these Years are generally stiled *Minors*. Again, from thence to twenty-five they are reckon'd *Youths*; from twenty-five to thirty-five they are said to be in a State of *Manhood*. After this they begin to be number'd among the *Seniors* or *Elders*, and at sixty are *old Men* and *Women*. (3.) With respect to their State of Health, a Man is said to be *Compos Mentis*, when he appears to have *Understanding* and *Judgment*; *Sanus Corpore*, found in Body, when all the Members are found and whole; or else he is said to be *Mente captus*, disorder'd in Mind: An *Invalid*, when maimed or mancated in his Members; and *diseased*, when labouring under any Sickness or Weakness of Body, &c. (4.) Again, with regard to *Liberty*, they are distributed into *Liberi* or Freemen, and *Servi* or Bond-men, or Servants. The Free-men were again of two Sorts, viz. *Ingenui*, such as were born free; or *Liberti*, such as were made free by *Manumission*. (5.) With respect to *Relation*, the Law considers that of *Husband* and *Wife*, *Parents* and *Children*, *Brothers* and *Sisters*, with all other Degrees thereof, whether in a direct Line, by *Blood*, call'd *Consanguinity*; or by *Matrimonial* Alliance, call'd *Affinity*. (6.) With regard to *Power*, Persons are distinguished into *Princes* or *Rulers*, and *Subjects*, *Masters* and *Servants*; with various other Discriminations on various Accounts not to be here enumerated.

Invalid. *Diseased.* *Liberty.* *Liberi.* *Servi.* *Ingenui.* *Liberti.* *Relation.* *Power.*

Now according to all these and other indifferent Capacities and Relations of Men, the *Civil Law* has made Provision that every Man in his proper Circumstances shall freely enjoy his Right, or every Thing that may be esteem'd or adjudged to be due to his *Character*,

Character, *Station*, or *Quality* of Life; and this is call'd the *Right of Persons*.

THINGS are the next Object of *Right*, to the *Justinian* Division of Things is threefold. (1.) Some Things are in our *Patrimony* or *Inheritance*, and some are not. (2.) Some are *common*, some *public*, some belong *universally to all*, some to *no Person*, and some to *particular Persons*. (3.) Some Things are said to be *corporeal*, and others *incorporeal*. Of these a little in Order, according to the several Titles.

Things which are of or belonging to our *Patrimony*, are those which we properly call our *Goods*, moveable or immoveable; the Subject of *Commerce*; and are said to be of *human Right*, and which we have Liberty to use according to our *Wills* and *Necessities*. Those Things which are not appertaining to *Patrimony*, are Things *sacred*, *religious*, and of *divine Right*.

Things which by *natural Right* are *common*, or the *common Property* of all Men, are all such as are equally useful and necessary to all Men; as the *Air*, the *Sea*, *Sea-Shores*, *Running Waters*, &c. also *Birds* which fly in the open *Air*, *Fishes* in the *main Ocean*, &c.

Things public are all such whose Property appertains to a certain People, and their Uses common to all. Under this Head therefore are *Rivers* and *Ports* in general; and therefore the *Right of Fishing* used to be free to all, as also the Use of the *Banks* is public as the *Rivers* themselves, by the *Law of Nations*. However it might be in *Justinian*'s Time, 'tis certain that now the *Right of Rivers*, *Ports*, and *Fishing*, is very much restrain'd from public or free Use, by particular *Jurisdiction*.

Things are said to be *universal*, and to belong to all which are in *Cities*, as *Theatres*, *Markets*, *Courts*, public *Walks*, and all other Things proper to *Cities*, and subservient to the Uses of private Persons according to the *Municipal Laws* thereof.

Things which are properly belonging to *no Man*, are all such as are not the Subject of Commerce, nor can be said to be the *Goods* of any one, either in Regard of Necessity or Use. As, among natural Things, *Wild Beasts*, *Birds*, *Fishes*, and *Men*; and all Things of *divine Right*, as *Churches*, *sacred Utensils*, *religious Services* by divine Institution, and all *holy Things*.

Division of Things.

Those of Patrimony.

Things common

Things public.

Things universal.

Things pertaining to none

Lastly,

Things of private Property. *Lastly*, Things which are the Property or the Goods of particular Men, are all such as are by *private Patrimony*, or which any particular Man may acquire the Possession of, by any Invention or Commerce, agreeable to the *Laws of Nations*. Now the Dominion or Possession of Things is obtain'd in four several Ways; as (1.) By *Occupation*, which is by apprehending and taking those Things which before did properly belong to none; as *Fishing*, *Fowling*, *Hunting*, &c. by the *Laws of Nations*. (2.) *Accession*, which is when any Thing in our own Possession produces an Increase, as of *Animals* by Birth, *Vegetables* by Plantation, and *Riches* accruing by Trade and Industry. (3.) *Specification*, as 'tis call'd; which is the making or constituting a *new Species* of Things from Materials before in my Property; as making Bricks of Clay, and Houses of them; making Cloth of *Flax* and *Wool*, and Garments thereof, &c. (4.) *Tradition*, by *transferring* or making over the Right and Property of Things from one Man to another, as in *Buying* and *Selling*, by *Donation* or *Gift*, or any other legal Way.

Acquired by Occupation.

Accession.

Specification.

Tradition.

But I cannot think this a very *critical Enumeration* of the several Ways of making an *Acquisition* or *Possession* of the Right and Property of Things.

The third Division of Things was into *Corporeal* and *Incorporeal*.

Things corporeal. *Corporeal Things* are said to be all such as are *tangible*, or that may be *touched*, or that fall under the *external Sense*; as *Raiment*, *Money*, *Land*, *Man*, and all other Things moveable and immoveable.

Incorporeal. *Incorporeal Things* are such as can neither be *seen* nor *touch'd*, but are Objects only of *Intellectual Perception*; as *Rights* and *Privileges*, *Services*, *Obligation*, and *Uses* of Things: Concerning all which *Civilians* discourse very largely under various Titles and Questions relating to each; and every Case of Things *Corporeal* and *Incorporeal* is discuss'd, explain'd, and stated according to the Tenor of *Civil Right*; and this is call'd the *Right of Things*.

The Right of Actions. The *Right of Actions* is the third Object of *Civil Law*. *Action*, as *Civilians* define it, is nothing but *the Right of proceeding in Judgment to obtain what is due*; that is, it is a *Power* or *Faculty* of acting in such Ways, that a Person, in Courts of Judicature,

Action, what.

may ask or demand of the *Judge* that which ought to be given or restored to him: And this *Form* or *Process* of obtaining, or defending one's Right at Law, is call'd *the pleading a Cause*; and the whole Affair is call'd an *Action*, *Causa*, *Prosecution*, or *Suit* at Law indifferently.

Actions receive a large Division among *Lawyers*, the principal Kinds of which are these: (1.) *Personal Actions*; these are all such whereby a Man claims *Debts*, or other *Goods* and *Chattels*, or *Damages* for them; or for *Wrong* done to his *Person*. (2.) *Actions Real*; these are all such as concern the *Right* of *Things*, as when the *Plaintiff* claims Title to Lands, Tenements, Rents, or Commons in *Fee-Simple*, *Fee-Tail*, or for Term of Life. (3.) *Actions Civil*; these are all such as proceed from *legitimate* and *civil Causes*, as when a Man sues for his Due by Covenant, Contract, *&c.* as Money lent, *&c.* (4.) *Mixed Action*, *viz.* that which is party *personal*, and partly *real*, or wherein the Right of *Persons* and *Things* are both concerned; as when a *Suit* is given by Law to recover the Thing demanded, and Damages for the Wrong sustain'd. (5.) *Action Penal* is such an one as aims at some *Penalty* or *Punishment* in the Person sued, either *corporeal* or *pecuniary*. (6.) *Action Popular* is that which is upon the Breach of some Penal Statute, which any Man that will may sue for himself and the King. (7.) *Action of a Writ* is when the *Defendant* pleads some Matter, by which he shews the *Plaintiff* had no Cause to have the Writ which he brought. (8.) *Action upon the Case* is a Writ brought against any one for an Offence done without Force, and by Law not specially provided for. (9.) *Action upon the Statute* is an Action brought against a Man upon an Offence against a *Statute*, whereby a Penalty is laid for so doing. (10.) *Action Auncestral*, that which we have by some Right descending from our *Ancestors*.

The Kinds of Action:
Personal.
Real.
Civil.
Mixed.
Penal.
Popular.
Of a Writ.
Upon the Case.
Upon the Statute.
Auncestral.

THEY who would see these Subjects treated of at large, may consult the Works of *Civilians*, and especially those who have wrote upon the *Imperial Institutions*; as *Antonius Perezius*, and *Cowel's Institutes of the Laws of* England. I shall now proceed to specify the several Kinds of *Laws* now in Use in *England*, and

Of the Laws of England.

and the Methods of Proceeding in Courts of Judicature thereby. These Laws are

The Civil Law. THE *CIVIL LAW*, of which we have spoken enough already. Use is made of this Law in all *Eccleſiaſtical* Courts, Courts of *Admiralty*, and Court of the *Earl Marſhal*. Alſo this Law is made uſe of in *Treaties* with foreign Potentates. And, laſtly, both the *Univerſities* ſerve themſelves of the *Civil Law*; for, by their Privileges, no *Student* is to be ſued at *Common Law*, but in the *Vice-Chancellor*'s Court, for *Debts*, *Accounts*, *Injuries*, &c.

The Common Law. THE *COMMON LAW*, this is a Compendium of the beſt and moſt antient *Saxon Laws* firſt made by *Ethelbert*, the firſt *Chriſtian* King of *England*. Theſe Laws King *Alfred* afterwards reduced into one Body, Codex, or Volume of Laws; and being made to extend equally to the whole Nation, it was very properly call'd, in the *Saxon* Tongue, *The People's Right*, i. e. the *Common Law*. And this *Codex* was probably the ſame with the *Dom-bec*, or *Dome-Book*, whereby, in all ſubſequent Reigns of the *Saxon* Race, they adminiſter'd Juſtice, and determined Cauſes. Theſe Laws were not ſo much obſerved by *Harold* I. and *Hardicanute*, as being Uſurpers of the *Daniſh* Race. *Edward the Confeſſor*, being of the *Saxon* Race, reſtored theſe Laws, and out of all then extant made a Collection of the beſt, and order'd them to be obſerv'd, as *Alfred* had done before him. This Body of *Folc-Right*, or *Common Law*, was not ſo much alter'd by the *Normans* in *Subſtance* as in the *Names* of Things; for even *William the Conqueror* publiſh'd them as the Laws of *Edward the Confeſſor*, confirm'd and proclaim'd them to be the Laws of *England*, and took an Oath to keep them inviolable. In the Reign of *Henry* I. the old written Laws were reviſed, and others added to them, which together made a Summary of all the *Rights* and *Privileges* of the People of *England*, and was call'd the *Magna Charta*, or Great Charter of *Engliſh* Rights. This was afterwards confirm'd by King *John*, and again confirm'd and augmented by *Henry* III. and other Kings after him. Such is the Original, and from thence is derived the Body of the *Common Law* now in Uſe.

Magna Charta.

Of the Statute Law. *STATUTE LAW* is that which conſiſts of *Statutes*, *Acts*, and *Ordinances* of *King* and *Parliament*; the

the Manner of making which has been already related. This Law provides for all Cases wherein the *Common Law* is silent: And this is most properly call'd the *English* Law, as being made at the Desire and Request of *English* People.

CANON LAW. The Canons of many ancient *General Councils*, of many *National* and *Provincial Synods*, besides divers Decrees of the Bishop of *Rome*, and the Judgments of *antient Fathers*, had been received by the Church of *England*, and incorporated into one Body of *Common Law*; by which she always proceeded in the Exercise of her Jurisdiction, and doth still by virtue of the Statute 25 *Hen.* VIII. so far as the said Canons and Constitutions are not repugnant to the *Holy Scriptures*, the King's *Prerogative*, or the *Laws*, *Statutes*, and *Customs* of the Realm: But this has come under some Regulations of late by *Statute Law*. *Of the Canon Law.*

MARTIAL LAW; this depends upon the King's Will and Pleasure, or his *Lieutenant's*, in time of actual War; for on account of sudden Dangers, and casual Emergencies of War, the King useth an absolute Power, inasmuch as his Word goes for a Law. This Sort of Law extends only to *Soldiers* and *Mariners*, hath Being only in time of War, and then and there only where the King's Army is on Foot. This Law also is very much regulated by *Statute Law*. *Of the Martial Law.*

FOREST LAW; this consists of Laws relating to *Forests*, which are peculiar and different from the *Common Law*. The *Forest Laws* are particularly express'd in the *Charta de Foresta*, or Charter of the *Forest*. All Offences committed in *Forests* and the *Parks* of Noblemen are punished with Severity; and *Deer-Stealing* is now made *Felony*, and punishable with Death. *Of Forest Laws.*

LAW of CUSTOM. In divers Parts of *England* there are some peculiar *Customs* that have the Force of *Common Law* among the People to whom they belong: As *Burrough-English*, a Custom peculiar to *England*, whereby the younger Son, or, in want thereof, the younger Brother is to inherit. Also *Gavel-kind* is a Custom peculiar to the People of *Kent*, the Privileges of which are threefold; (1.) The Male Heirs share all the Lands alike. (2.) The Heir at fifteen *Of Custom.* *Burrough-English.* *Gavel-kind.*

fifteen is at full Age to ſell or alienate. (3.) Tho' the Father be attainted of Treaſon, yet the Son enjoys the Inheritance: Hence the Proverb, *The Father to the Bough, and the Son to the Plough.* Theſe Privileges they received by Grant from *William the Conqueror.*

By-Laws. MOREOVER by the King's Royal Charter, granted to divers Cities in *England*, the Magiſtrates have a Power to make ſuch Laws as may be beneficial for the Citizens, and not repugnant to the Laws of the Land; and theſe are binding only to the Inhabitants of the Place, unleſs they are for *general Good*, or againſt a *general Inconvenience*, for then they bind *Strangers* alſo.

The Manner of Procedure in Courts of Judicature. THE Manner of Procedure in all *Suits*, *Cauſes*, or *Trials* of *Common* and *Statute Law*, is as follows:

THE *Sheriff* ſummons twenty-four Men, either *Gentlemen* or the better Sort of *Yeomen*, choſen indifferently out of the County: Theſe, at the Opening of every Quarter-Seſſions, are ſworn to enquire into the Nature of the Facts contain'd in all the *Bills of Indictment* preferred to the Court: If they find the Bill to be *true*, they write on it *Billa vera*, and the Perſon therein named is *indicted*; but if they do not find it true, they write on the Backſide *Ignoramus*: And this is called the *Grand Inqueſt* or *Jury*.

Grand Inqueſt or Jury.

Of Perſons indicted. THE Perſon indicted at the Quarter-Seſſions is ſought after, taken, and ſent to *Priſon*, if he can be found, that he may be convicted or cleared of the Matter of which he is indicted at the next Aſſizes held for that County. If the Sheriff cannot find him, Proceſs is made out againſt him to ſurrender himſelf *Priſoner*, or elſe to be *outlaw'd*. So he is call'd upon three ſeveral Seſſion-Days running to render himſelf up to the Law; the fourth is call'd the *Exigent*, when, upon his *Non-appearance*, he is *outlaw'd*. And this *Outlawry* conſiſts in his being diveſted of the Benefit and Protection of the Laws of the Land, excluded from the Number of the King's Subjects, and the Confiſcation of all his Goods to the King.

Outlawry, what.

Of Trials at Aſſizes. AT the enſuing *Aſſizes* the Perſons indicted are brought to their Arraignment in the Court at the Bar before the Judge: If no Man appear to proſecute the

indicted

indicted Person, he is acquitted directly; if Prosecutors appear, they have Witness to attest and declare the Matter against the Prisoner. The *Sheriff* hath impanell'd in Readiness an Inquest of *twelve Men*, call'd the *Petty Jury*; these are placed near the Prisoner to hear and attend the *Charge*, the Pleadings of the Lawyers on both Sides, and the Defence which the *Prisoner* can make: They also ask what Questions they please of the Witness; and when all the Witnesses are examined, and the Pleadings are all over, one of the Judges briefly recapitulates all that has pass'd, putting the *Jury* in mind of what has been alledg'd and defended on either Side, and informing them what Points are according to Law, and what not. After which the *Jury* are bid to retire by themselves, an Officer being charged with them to see that they have neither *Meat*, *Drink*, *Fire*, nor *Candle*, that they may sooner conclude their Opinions, which must be *unanimous*. When they are agreed, they come back into Court, and desiring their *Foreman* (*i. e.* the first upon the List) may speak for them, he declares, in few Words, the Opinion of all the *Jury*, they being all of one Mind, or else to be remanded back to their Confinement till they can agree. Their *Verdict* in *criminal* Causes is *guilty*, or *not guilty*; and in *civil Actions* the Form is *finding the Bill for the Plaintiff* or *Defendant*.

The Manner of pronouncing Sentence.

When a Person is indicted and found guilty of a *Capital Crime*, the *Judge* proceedeth to give Sentence according to this Form, *viz.* Thou *N. M.* hast been *indicted* of such a *Felony*, &c. and therefore *arraign'd*; thou hast pleaded *not guilty*, and put thyself upon *God* and thy *Country*; they have found the *guilty*; thou hast nothing to say for thyself; the Law is, *Thou shalt return to the Place from whence thou camest; from thence thou shalt be carried to the Place of Execution, there thou shalt be hanged by the Neck till thou be dead.* Then he saith to the Sheriff, *Sheriff, do Execution.*

Of Capital Crimes.

All Crimes in *England* that are *Capital*, or touch the *Life* of a Man, are of three Kinds, *viz.* (1.)

High-Treason.

High-Treason, which comprehends all Attempts against the *Security*, *Safety*, and *Peace* of the *King*, or any of the *Royal Family*; as also against the Government and Constitution; also Clipping, or Coining

false Money, Counterfeiting the King's *Privy-Seal*, &c. (2.) *Petty-Treason*; this is when a Man kills his Master, a Wife her Husband, a *Secular* his Prelate, to whom he owes Faith and Obedience. (3.) *Felony*; this comprehends *Murder*, *Larceny* or *Theft*, *Sodomy*, *Buggery*, *Rapes*, *Firing Houses*, &c.

Petty-Treason.

Felony.

The Punishment of Traitors.

THE *Punishment* of *High-Treason* is by Law thus appointed: The *Traitor* shall be drawn on a Sledge to the Gallows, there hang'd by the Neck, presently cut down alive, his Bowels instantly taken out of his Belly, and burnt before his Face; then his Head shall be cut off, his Body divided into four Parts, and the whole hung up or impal'd where the King shall command. Besides all this his *Lands* and *Goods* are forfeited, his Wife loseth her *Dowry*, and his Children their *Nobility*, and all Right of Inheritance from him or any other *Ancestor*.

For Petty Treason.

FOR *Petty-Treason* the Punishment is to be *drawn* on a Sledge and *hanged*, for a *Man*; but for a Woman, to be *drawn* and *burnt alive*, tho' it be usual to *strangle* them first at the Stake. All *Felonies* are punished with *Hanging only*, as before said. But the King has the Prerogative of shewing *Mercy* to *Felons* in reprieving them from Death, either for Pardon, Transportation, *&c.*

Beheading for a Peer.

IF a *Peer* of the *Realm* commit *High-Treason*, *Petty-Treason*, or *Felony*, altho' his *Judgment* be the same with that of common Persons; yet the King doth usually extend so much Favour to such, as to cause them only to be beheaded with an Ax on a Block lying on the Ground, and not, as in other Countries, by a *Sword*, *kneeling* or *standing*.

The Punishment of a mute *Person.* Peine forte & dure.

IF a *Criminal* indicted of any capital Crime refuseth to plead, or put himself upon a *legal Trial*, then, as *mute* and *contumacious*, he is presently to suffer the horrid Punishment call'd *Peine forte & dure*, or *Pressing to Death*, by extending him on his Back, naked on a Floor, and laying on his Body Iron or Stone, as much or more than he can bear. The next Day he is to have *three Morsels of Barley Bread* without Drink; and the third Day he is to have Water next the Prison-Door (except Running Water) without Bread; and this shall be his Diet till he die. But the *English*, naturally abhorring *Cruelty*, generally charge

charge the Criminal with so much Weight at once, as causes him to expire presently.

THUS much for the *Laws of England*, which are undoubtedly the best in the World for the *Mercy* and *Equity*, as well as the *Justice* of them; one thing only is to be wish'd, that the *Benefit* of them might be had with less *Difficulty*, and that the *Marks* of a *corrupt Commonwealth* were less visible in their *Bulk* and *Multiplicity*.

Of HERALDRY.

Heraldry *defined.*

HERALDRY is the Art of *Blazoning* or displaying Coats of *Arms* in proper Colours and Metals; and is therefore also call'd *Armory*; and Persons well skill'd therein, *Heralds* or *Armorists*. This Art consists of two great Parts, *viz. Blazon* and *Marshalling*.

Blazon. *BLAZON* is the Explication of *Coat-Armour* in such apt and significant Terms, that the Virtues and Merits of the first Bearers may thereby be known; and this is done by expressing what the *Colours*, *Figures*, *Postures*, *Positions*, &c. of Things borne in the *Coat-Armour* do import; for they are all of them *Symbolical Representations* or *Ensigns* of the *Virtues* and *Qualities* of the Persons to whom they were granted.

Marshalling. *MARSHALLING* is the orderly Disposition of several Coats, belonging originally to divers Families, within one *Shield* or *Escutcheon*, together with all the Armorial Ensigns, Ornaments, and Decorations belonging thereto, in their proper Places without the *Escutcheon*.

The Shield or Escutcheon. THE *SHIELD* or *ESCUTCHEON*, call'd by the Antients *Scutum*, is the principal Thing whereon Figures, as Emblems, are now painted by all Nations. As to its *Shape* and *Position*, there being no established Rule concerning them, they are never mentioned in *Blazoning*.

The Field. THE *FIELD* is the whole Surface or Space within the bounding Lines of every *Shield* or *Escutcheon*, and retains such honourable Marks as antiently were acquired in the *Field of Battle*, being of the Tinctures and Metals received in the Science of *Heraldry*; and are call'd

Arms, what. *ARMS*, which are all those *Figures* and *Characters* with which the Field of the *Escutcheon* is charg'd,

and are expreſſive of the Degree, Merit and Quality of the original Bearers. Theſe are taken from all Parts of the Creation; as *Angels*, *Men*, *Beaſts*, *Fowls*, *Fiſhes*, *Inſects*, *Celeſtial Bodies*, *Trees*, *Herbs*, and all *Artificial Subjects*. The ſeveral Parts, Poſtures, Poſitions, and Tinctures of which are alſo to be regarded, as being very ſignificant in *Coat-Armory*.

The Points of an Eſcutcheon.

THE *POINTS* or Parts of an *Eſcutcheon* are nine, *viz.* (1.) Three on the upper Part, in an horizontal Direction; of which the middle Point is call'd the *Chief*; that on the right Corner, the *Dexter Chief*; and the other in the left Corner, the *Sinister Chief*. (2.) Three Points perpendicularly ſituated in the middle Part of the *Shield*; of which the firſt is call'd the *Collar* or *Honour Point*; the ſecond, the *Heart* or *Feſs Point*, as being exactly the middle Point of the Field; the third is call'd the *Nombril* or *Navel Point*. (3.) Three Points horizontally at the Bottom of the Shield; of which the middle one is call'd the *Baſe Point*; the other two the *Dexter* and *Sinister Baſe Points*. Now the Charges are of different Importance, as they are placed differently in theſe Points of the Shield; and therefore their Situation, as to the Points, ought to be carefully mention'd in blazoning a Coat of Arms, unleſs in a few ſpecial Caſes.

Of Tinctures.

TINCTURES are next to be conſidered in *Armory*; they are thoſe *Armorial Colours* with which the Enſigns and Charges of *Coat-Armour* are painted. Thoſe uſed in *Heraldry* are of three Sorts, *viz.* (1.) *Metals*, as *Or*, Gold; and *Argent*, Silver. (2.) *Colours*, as *Azure*, *Gules*, *Sable*, *Vert*, *Purpure*, *Tenne*, and *Sanguin*. (3.) *Furs*, the principal of which are two, *viz.* *Ermine* and *Vair*; beſides which are ſeveral others, as *Ermines*, *Erminois*, *Erminites*, *Pean*, *Contre-Vair*, *Potent*, *Varry*, &c.

Metals, Colours, and Furs.

The different Blazon of them for different Degrees of Men.

IN *Blazoning*, theſe Colours are differently term'd according as the Bearers are *Private Gentlemen*, *Nobles*, or *Princes*; for they are call'd *Tinctures* in the Arms of *Gentlemen*; *precious Stones* in thoſe of *Noblemen*; and *Planets* in thoſe of *Emperors*, *Kings*, and *Sovereign Princes*. The particular Names of which, in each Caſe, are ſeen in the following Table.

Colours.	Gentlemen. Tinctures.	Noblemen. Precious Stones.	Sovereigns. Planets.
Yellow.	Or.	Topaz.	*Sol* ☉
White.	Argent.	Pearl.	*Luna* ☽
Black.	Sable.	Diamond.	*Saturn* ♄
Red.	Gules.	Ruby.	*Mars* ♂
Blue.	Azure.	Sapphire.	*Jupiter* ♃
Green.	Vert.	Emerald.	*Venus* ♀
Purple.	Purpure.	Amethyst.	*Mercury* ☿
Orange Colour.	Tenne.	Jacinth.	*Dragon's Head* ☊
Murry.	Sanguin.	Sardonyx.	*Dragon's Tail* ☋

THE two laſt Tinctures, *viz. Tenne* and *Sanguin*, are counted *Stainant*, or *Stains* rather than *Colours*, and therefore are rarely or never uſed for the Fields of *Coat-Armour*, but with *Abatements*, to expreſs ſome *Diſgrace* or *Blemiſh* in the Bearer.

How repreſented in Print.

THESE *Colours* are repreſented on Copper-Plate Prints by Points and Hatches variouſly poſited, as follows. (1.) The Metal *Or* is known by ſmall *Pricks* or *Points* over all the Field or Charge. (2.) The Metal *Argent*, by the natural Whiteneſs of the Paper, without any Strokes or Points. (3.) *Azure*, by Hatches or Strokes acroſs the Shield from Side to Side. (4.) *Gules*, by Lines from Top to Bottom. (5.) *Sable*, by Hatches croſſing each other. (6.) *Vert*, by Hatches from *Dexter Chief* to *Siniſter Baſe*. (7.) *Purpure*, by Hatches from *Siniſter Chief* to *Dexter Baſe*. (8.) *Tenne*, by croſs Hatches from Right to Left, and from Left to Right. (9.) *Sanguin*, by Hatches from Right to Left, and others from Side to Side.

Metal and Colour always go together.

IN the Compoſition of Arms, *Metal* and *Colour* always go together, to repreſent them at the greater Diſtance. For *Metal* muſt never be placed upon *Metal*, nor *Colour* upon *Colour*, by the Rules of *Heraldry*. Thus if the Field be *Azure*, the immediate *Charge* muſt be either *Metal* or *Fur*. For Example,—The Field is *Azure*, Fretty *Argent*, on a Feſs *Gules*, three *Leopards* Faces *Or*.—So that here is firſt *Colour*, (Azure) then *Metal*, (Argent) and then *Colour*, (Gules) and again *Metal*, (Or.) In all Coats of Arms there muſt be *two Tinctures* at leaſt; and no Coat is accounted good that has not one of the *Metals*.

THE

THE *Shield* thus covered with ſome or other of theſe *Metals*, *Colours*, or *Furs*, there is then (rarely otherwiſe) ſome Charge laid upon it, which are of two Sorts, *viz.* Proper and Common. Proper Charges are thoſe which more peculiarly belong to this Art, and theſe are call'd *Ordinaries*, of which there are nineteen in Number; of theſe nine are call'd *HONOURABLE ORDINARIES*; which are as follow. *Of Charges.*

The nine honourable Ordinaries.

	Whoſe Content is
1. The CROSS	5. Part of the Shield uncharged, elſe 3d Part.
2. The CHIEF	3. Part, horizontally on the Top.
3. The PALE	3. Part, perpendicularly in the Middle.
4. The BEND	5. Part charged, from *Dex. Chief* to *Sin. Baſe*.
5. The FESS	3. Part, horizontally acroſs the Middle.
6. The INESCUTCHEON	5. Part, in the Middle, a little Shield.
7. The CHEVRON	5. Part, an Angle on the *Dex.* and *Sin. Baſe*.
8. The SALTIER	5. Part charged, like St. *Andrew*'s Croſs.
9. The BAR	5. Part, placed like a *Feſs*.

The ten leſs honourable ones.

THE ten leſs honourable Ordinaries are, (1.) The *Gyron*, form'd ſingly by two Lines drawn from the Sides to the *Feſs* Point of the Shield; but they are borne generally many together, as ſix, eight, &c. (2.) The *Orle*; it conſiſts of a Border only, like that of an *Eſcutcheon*, the inner Part, or Area, being void. (3.) The *Pile*; it is broad at Top, like the *Pale*, and ends in a Point or Angle at Bottom. (4.) *Quarter Dexter*, and (5.) *Quarter Siniſter*; they contain a fourth Part of the Field, at the right or left Side at Top, as the Name imports. (6.) *Canton Dexter*, and (7.) *Canton Siniſter*; theſe differ in nothing from the Quarter, but in being leſs and peculiar to the *Gentry*, whereas the Quarter is proper to *Nobles* only. (8.) The *Flanch*, (9.) The *Flaſque*, and (10.) The *Voider*; theſe three are *Segments of Circles*, from the Top to the Bottom of the Shield, on each Side one; for they are always borne by Pairs. The *Flanch* is biggeſt, the *Flaſque* next, and the *Voider* leaſt of all.

The Signification of the nine honourable Ordinaries

THESE honourable Charges are all of them of important and distinct Signification, as follows. (1.) The *Cross* signifies *Afflictions* for the Cause of Religion, and was anciently used by *Christians* for *Ensigns* in the *Holy Wars*, &c. (2.) The *Chief* denotes the first Bearer was a Person in *Authority*, or Place of *Command*, when he received his Coat by his Desert. (3.) The *Pale* imports him skill'd in *Mining*, and such like profitable Arts. (4.) The *Bend* shews him to have been valiant in War, and one who mounted on the Enemy's Walls. (5.) The *Fess* denotes him a worthy General or Leader of an Army. (6.) The *Inescutcheon* shews him to be one who won his Enemy's Arms. (7.) The *Chevron* declares him to have been the Promoter and Top of his Family; and the Projector or Finisher of some great Work; and the Shelter, &c. of his Family. (8.) The *Saltier* implies he behaved honourably at some Siege, and did some valiant Exploits against the *Picts* and *Scots*. (9.) The *Bar* shews him to have been serviceable in raising Batteries or Fortifications, to the Detriment of the Enemy, and Security of his Prince's Army.

Of the others also.

THE other less honourable Ordinaries have also their proper Significations. Thus (1.) The *Gyron* is a Note of *Unity* and *Reconciliation*. (2.) The *Orle* shews the first Bearer so valiant, as to fight till his Shield was hewn through. (3.) The *Pile* shews him to have been excellent in Fortifications, and rich in Buildings. (4.) The *Quarter* and *Canton* shew the first Bearer to receive an Augmentation from the King, for some eminent Service done; or that he won his Enemy's Shield. (5.) The *Flanch* and *Flasque* both shew him to have been true and trusty to his Prince in the Service he was employ'd in by him. And (6.) The *Voider* is the proper Reward for a Woman for the like Services done.

The Subdivision of Ordinaries.

MANY of the principal Ordinaries have a Subdivision into some lesser Parts, which are the Diminutive of that *Denomination*. Thus the *Bend* hath derived from it the *Bendlet*, containing half the Breadth of the *Bend*; the *Garter* half the Breadth of the *Bendlet*; the *Cost* half the *Garter*; and the *Ribband* half the Breadth of the *Cost*. The *Bend Sinister* hath the *Scarp* or *Scarf* half its Breadth; and a *Baton* or *Truncheon*, a fourth Part of its Breadth. The *Chief* hath

hath its *Fillet* a fourth Part of its Breadth. The *Pale* gives Derivation to the *Pallet* half its Breadth; and the *Endorſe* a fourth Part. The *Chevron* hath the *Chevronel* half its Breadth; and the *Couple Cloſe* a fourth Part. From the *Bar* is derived the *Cloſet* half the Breadth; and the *Barrulet*, a fourth Part. *Note*, An *Endorſe*, *Couple Cloſe*, and *Barrulet*, are not borne in *Coat-Armour* ſingly, but by Pairs always with their Principal between them.

Of the Form of the Lines bounding the Charges.

THE Lines which compoſe or bound theſe Charges have divers remarkable Forms, which are eſteemed as additional Notes of Diſtinction; and are as follow.

1. *Invected*, the Points going into the Charge
2. *Ingrailed*, the Points going into the Field
3. *Waved* or *Undee*
4. *Nebulee*
5. *Crenelle* or *Imbattel'd*
6. *Raguled* or *Ragulee*
7. *Indented*
8. *Dauncette*
9. *Patee* or *Inclave*
10. *Champaine*

How to be named.

IN *Blazon*, if the Out-lines of the Charge be *plain* or *ſtrait*, then the Charge is barely named, and no Mention made of its Lines; but if the Lines which conſtitute the Charge be of any of the foregoing Forms, they are always mention'd in *Blazoning*; as, ——He bears Azure, a *Chief* invected, ——a *Pale* ingrail'd, ——a *Feſs* indented, &c.

Of the Partition of the Field.

THE *Field* of the Eſcutcheon is generally divided into two or more equal Parts by Lines variouſly poſited acroſs the ſame, which Partition muſt be firſt mentioned in *Blazoning*, according to the Place of the Ordinary which the ſaid Line or Lines poſſeſs. Thus if a Line perpendicular to the Horizon divide the *Shield* equally, it is ſaid to be *parted per Pale*; if the Line be parallel to the Horizon, it is *parted per Feſs*; if from *Right* to *Left*, it is *parted per Bend*; and ſo of any other.

IF

If the *Field* be divided into ſeveral equal Parts alternately, of *Metal* and *Colour*, or *Fur*, then it is ſaid to be *Pally* or *Pale-ways*, *Bendy* or *Bend-ways*, *Barry* or *Bar-ways*, &c. according as the parallel Lines were in a Poſition agreeable to that of the *Pale*, *Bend*, *Bar*, &c. Moreover, the *Field* is divided into ſeveral equal Parts by two of thoſe Ways at once, as by Parallel Lines from *Top* to *Bottom*, and *Right* to *Left* interchangeably; and then it is blazon'd *Pally-Bendy* of ſix, eight, &c. Pieces; and thus otherways you have *Barruly-Bendy*, *Barry-Pily*, &c. Alſo when Figures are placed in the Part or Direction aſſign'd to any of the Ordinaries, as the *Pale*, *Bend*, &c. they are then ſaid to be borne *in Pale*, *Bend*, &c. Thus much for *Proper Charges*.

Of Common Charges. *COMMON CHARGES* are all thoſe Figures which (beſides the *Proper Charges* mentioned) are painted in *Coat-Armour*, or within the Field of the Eſcutcheon; they are taken from every Tribe of Beings, both *Natural* and *Artificial*. Concerning theſe a few Things muſt ſuffice here.

Angels. *ANGELS*, *Cherubims*, &c. of the heavenly Inhabitants, or any Part of them, denote great *Celerity* in Buſineſs, and the *Meſſengers* of Peace and happy News.

Men. *MEN* are honourable Enſigns in *Coat-Armour*, as (1.) *Saints* borne ſhew the firſt Bearer was ſome *Biſhop*, *Abbot*, &c. who built or ruled ſome Place dedicated to ſuch a *Saint*. (2.) *Heads* ſhew him to have done Service againſt thoſe People whoſe Heads are repreſented, as the *Saracens*, *Turks*, *Moors*, &c. (3.) *Hands* or *Arms* ſignify *Strength* and *Fortitude* in the Bearer. (4.) *Eyes* denote his excellent Judgment and Apprehenſion. (5.) *Legs* and *Feet* ſhew him to have been ſwift to purſue his Enemies, and are Emblems of *Support* and *Aſſiſtance*; as, (6.) The *Heart* is of *Knowledge* and *Underſtanding*.

Beaſts. Of *BEASTS*, (1.) Thoſe of *Prey* are more honourable than Beaſts of *Chaſe*. (2.) The *Male* is more honourable than the *Female*. (3.) They which are *gilt* are leſs honourable than ſuch as are not. (4.) The *Whole* is nobler than any of the *Parts*. (5.) The natural or proper Colour of the Beaſt is better than any other. (6.) The *free* and *regular* Poſture than the *irregular* and *conſtrained*; as *chained*, *muzzled*, and the like

like. (7.) Of the Parts of Beasts, the Heads are most honourable, and shew the first Bearer to have been the *Head of an Army*, and to have taken or destroyed some *General* of the Enemy. (8.) Next Beasts of *Prey* are the *Unicorn*, *Horse*, *Bull*, *Ram*, *Goat*, *Hart*, &c. all whose Heads are severally more honourable one than the other, as they are named. (9.) Next the *Head* are the *Legs*, *Paws*, and then the *Tails* of *Lions*. (10.) No Monsters, as *Griffins*, *Wiverns*, &c. are so honourable as real and natural Creatures. (11.) The Postures of Beasts of *Prey* are of great Account in Heraldry, and have particular Names, as *Couchant*, lying down; *Passant*, walking; *Combatant*, fighting; *Rampant*, rear'd on his hind Legs to fight; *Saliant*, leaping at; *Guardant*, looking towards you; *Regardant*, looking back or behind him; *Dormant*, sleeping; *Sciant*, sitting with the Fore-feet strait before them; *Endorsed*, two in a rampant Posture with their Backs towards each other; with many other Terms of less note; All which are significant and emblematical.

OF *BIRDS* borne in Arms, (1.) The *Female* is more honourable than the *Male*, except the *Cock*. (2.) Their *native* Colours are better than *artificial*. (3.) Birds of *Prey*, as *Eagles*, *Falcons*, &c. are most honourable. (4.) Birds of *Prey* and *Flight* are better *Volant*, or flying, than *Close*. (5.) *Poultry* and all *Water Fowl* are best *Close*; also the *Martlet*. In other Things they agree with *Beasts*. (6.) The *Heads* of *Birds* come next the *Whole* in Honour; then the *Feet* or *Talons* of *Birds of Prey*; after them the *Legs*, the *Wings*; and last of all the *Feathers*. *Birds.*

OF *FISHES*, (1.) The *Dolphin* is the principal, and is best in *Heraldry* when *embowed*. (2.) The most honourable Bearing of *Fish* is *Nayant*, or swimming; the next *Springing*; and then *Hauriant*, or in an exact Posture. (3.) The *Parts* of *Fishes* are seldom borne, except the Head and Shells. *Fishes.*

INSECTS are very rarely borne in Parts. Among them the *Ant* denotes Industry and a provident Mind; the *Bee*, a laborious and beneficent Person, with generous Courage and Passion; the *Serpent* shews the first Bearer to have been a close, subtile, and formidable Person; and so of others. *Insects.*

AMONG

Celeſtial Bodies.

AMONG the *CELESTIAL BODIES*, (1.) The *Sun* is the chief, and is an Emblem of *Glory*, *Splendor*, and *innate Worth* in the firſt Bearer. (2.) The *Moon* ſhews a Diſpoſition to do good by a Virtue or Power derived from ſome more eminent Perſon, and is augmented or abated according to the different Phaſes of the Moon: For, (3.) The *Creſcent*, i. e. the Moon increaſing, ſhews a younger Family, who, in all Probability, may riſe to greater Glory. (4.) The *Full Moon* denotes the Height of Glory in a Family: And, (5.) The *Decreſcent*, or waning Moon, the Declenſion of a Family. (6.) The *Planets* ſhew *Power* and *Influence* of Perſons in *higher Spheres* over their Inferiors. (7.) The *Stars* are a Note of Eminency, and given for ſome great Knowledge in the Arts and Sciences. (8.) *Clouds* ſhew *Honour* and *Eminency*, but withal *Uncertainty*.



Vegetables.



OF *VEGETABLES*, (1.) *Timber Trees* are preferred before others, and among them the *Oak* is the firſt in Eſteem. (2.) Of *Flowers*, the *Roſe* is firſt, the *Thiſtle* next, then the *Fleur-de-Lis*, and laſtly the *Lilly*. (3.) *Plants cultivated* are better or more honourable than thoſe which grow *wild*. (4.) Of the *Parts*, the Branches are firſt in Armorial Honour, the *Fruit* next, then the *Leaves*; after them the *Stumps* and *Roots*; and laſt of all the *Trunks*. Theſe all bear Part of the ſame Signification with the Tree to which they belong.







Artificial Things.

OF *Artificial Things* there are ſo many, and ſuch Variety of this Sort of Bearing, that only large Treatiſes of *Heraldry* can be conſulted on this Head for Information, ſince there are ſcarce any Parts or Effects of *Arts* and *Sciences*, but what are made uſe of for *Arms* or *Enſigns* of *Coat-Armour*: And therefore I ſhall only farther obſerve, concerning all *Common Charges* in general, that they are *ſignificative* of ſuch *Qualities* and *Virtues* in the firſt Bearers, as are moſt peculiar and remarkable in themſelves in the vulgar Account, as is pretty plain from the few Examples above-mentioned.

Of the Diſtinction of Houſes

To the Intent that *Coat-Armour* might deſcend to Poſterity with Safety, and free from Strife, *Diſtinctions* were invented: And as in *Britain* there has been a threefold Difference of Relation obſerved, *viz.* that of *Chiefs*, *Conſanguinity*, and *Strangers*, ſo their Differences

ferences of Armorial Bearings are of three Kinds, *viz.*

THE *CHIEFS* or *HEADS* of Families or Houſes bear two Sorts of *Charges* for their Difference or Diſtinction; (1.) A *Label* of three Points, or *File* of three *Labels*, which is ſometimes plain, and ſometimes charged. (2.) *Borders*; which are either plain, compound, indented, ingrailed, invected, quartered, charg'd, *&c.* *Charges for Heads of Families.*

FOR *CONSANGUINITY*, or Kinſmen, the Differences are according to the Branch of a Family from whom they originally deſcended. *For the First Family.*

This the { First Son / Second Son / Third Son / Fourth Son / Fifth Son / Sixth Son } bears { A Label with three Points / A Creſcent / A Mullet / A Martlet / An Annulet / A Fleur-de-lis }



Now ſince theſe are the Bearings of Diſtinction for Perſons of the *Firſt Houſe*, thoſe of the *Second Houſe*, which is the Family of the ſecond Son, will have their Diſtinctions as follow: *For the Second Family.*

The { Eldeſt Son / Second Son / Third Son / Fourth Son / Fifth Son / Sixth Son } beareth a Creſcent with { A Label / A Creſcent / A Mullet / A Martlet / An Annulet / A Fleur-de-lis } upon it.

IN like manner the Sons of the *Third Houſe* bear thoſe Differences reſpectively on a *Mullet*, the *Fourth Houſe* on a *Martlet*, the *Fifth Houſe* on an *Annulet*; and the Sons of the *Sixth Houſe* bear them on a *Fleur-de-lis*. And tho' there be Differences for every *Son*, yet

yet there are none for *Daughters*, for they are al deemed equal in point of Honour.

For Strangers. *STRANGERS* bear for Differences *Bends*, *Fesses*, *Barrulets*, *Chevrons*, *Pales*, *Quarters*, &c. and with these they bear their Arms lawfully and without Injury to any.

WHAT we have hitherto said relates to bearing Arms in an honourable Way, or for *Honour* and *Renown*; but there is another Kind of Bearing Coat-Armour, which tends to *lessen* and *abate* the *Honour* and *Reputation* of the Bearers; and these are therefore call'd

Of Abatements. *ABATEMENTS* of Honour, or Badges of Disgrace, and are such accidental Marks or Notes annex'd to Coat-Armour which imply some ungentleman-like, dishonourable, or disloyal Demeanor, Quality, or Stain in the Bearer, whereby the Dignity of the Coat-Armour is greatly abated; and are what we vulgarly call a Blot in their Escutcheon.

Nine several Sorts. OF these *Abatements Armorists* reckon nine, which are evermore of some one of the *Stainant* Colours, *viz. Tenne* or *Sanguin*, and always uncharged. (1.) The first is a *Delf* (or *Square Turf*) placed in the Middle of the *Field*, else it is not a Blot: It is given to one that *revoketh his Challenge*, as if *Dirt* were thrown in his Face. (2.) An *Inescutcheon reversed* in the Middle of the *Field*: It is given to him that discourteously intreats a *Maid* or *Widow* against her Will, and to him that flies from his Arms in War. (3.) A *Point parted Dexter*, i. e. when the upper Right Corner of the *Shield* is parted from the Whole, is given to him who boasteth too much of his martial Acts. (4.) A *Point in Point*, consisting of two arched Lines which bend towards the Base, and unite in the Honour Point: It is a Badge of Disgrace given to a *Coward*. (5.) A *Point Champaine*, it is formed of an arched Line cutting off the Base Part of the *Shield*, and is due to him who *killeth his Prisoner in cold Blood*. (6.) A *Plain Point*, it is by a *Strait Line* cutting off the Bottom of the *Shield*, as before, and is due to him who *flatters his Sovereign with Lies*, &c. (7.) A *Gore*; it is form'd on the Side of the Shield by two arched Lines, one from the *Sinister Chief*, the other from the *Base Point*, and unite in the *Fess Point* in an acute Angle; it is proper for a

cowardly and *effeminate Man.* (8.) A *Gusset*; it is made by a Line drawn from the *Sinister Chief* aslant into the *Field*, a little way, and then carried perpendicularly to the Bottom. It is given to one who loves *Venus* better than *Mars*, on the Right Side; and on the Left it is the Badge of a *Devotee* to *Bacchus*. (9.) The last and worst of all is the *whole Coat reversed*, or *turn'd upside-down*, and is proper to *Traitors*. This Coat must not be blazon'd in *Tinctures*, *Metals*, or *Furs*, but in the common Names of Colours, as Yellow, Red, &c. not *Or*, *Argent*, *Azure*, &c. *Note*, If any of the Descendents of the Person thus disgraced shall approve himself a *Man of Virtue and Honour*, he shall have the *Abatement* taken away, and his Coat render'd honourable as formerly.

Of Marshalling.

MARSHALLING is the second Part of *Heraldry*, and consists in an orderly ranging and bestowing of Things, (1.) *Within the Escutcheon*; as Coats of different Families marshall'd on account of *Descent*, *Marriage*, *Alliance*, *Adoption*, *Gifts of the Sovereign*, &c. which is also call'd *Quartering Coats of Arms*. (2.) *Without the Escutcheon*; these are by way of *Ornament*, as the *Helmet*, the *Mantle*, *Crest*, *Supporters*, *Escrol*, and *Motto*: Which marshall'd all together compleat *Coat-Armour* in the highest Degree, which is then call'd *Atchievement*.

Wherein it doth consist.

THE *QUARTERING* of Coat-Armour, then, is a proper Disposition of the Coats of distinct Families together within one *Escutcheon*: As on account of *Marriage*, when the Coats of *Man* and *Wife* are conjoin'd together Paleways, which is call'd *Impaling*, *Baron and Feme*. Also after Issue received the *Baron* doth bear the Arms of the *Feme* (she being an *Inheritrix*) in an *Inescutcheon*. Also the *Heir* may bear his Mother's Coat quarter'd with his own. Again by *Adoption* an Augmentation of Honour and Arms is often acquired, which Arms the Adopted marshals with his own in his own Coat. Also by the *Gift* or *Munificience* of the Sovereign a Person often has his Coat augmented with new Ensigns of Honour.

Of the Helmet.

As to the *exterior Ornaments* of an *Atchievement*, they are, (1.) The *Helmet*, which is an Head-piece or *Armour* for the Head; which for *Sovereigns*, *Nobles*, *Knights*, and *Gentlemen*, are of as many different Fashions.

Mantle.

Fashions. (2.) The *Mantle*, which was a *military Habit* used in antient Times by great Commanders in the Field to cover their *Helmets* withal, whence they came to be cut and slash'd after various Manners, the *Flutterings* and *Curlings* of which by the Wind are represented by the *jagged Scantlings* of the Mantle about the *Helmet* in the *Atchievement*. (3.) The *Creſt* or *Cognizance*; this is placed on the moſt eminent Part of the *Helmet*, and conſiſts of a *Crown*, *Wreath*, *Chapeau*, or *Cap of State*, according to the Degree of the Bearer, ſurmounted of ſome honourable Figure, which is generally of the Animal Tribe.

Creſt or Cognizance.

Supporters or Cotiſes.

(4.) *Supporters* or *Cotiſes*, which are thoſe Figures on the Sides of the *Atchievement*; which if they are Animals, and touch the *Eſcutcheon*, they are call'd *Supporters*; if otherwiſe, they are call'd *Cotiſes*. The *Nobility* only are permitted to have their Arms ſupported. (5.) The *Eſcrol* or *Compartment*, on which the *Supporters* ſtand, and which contains (6.) The *Motto* or *Device*, which is ſome Word or Sentence contrived by the Bearer, of ſome peculiar and important Signification; as, *Sola nobilitat Virtus*, Virtue only enobles us; *Honos Virtutis Præmium*, Honour is the Reward of Virtue.

Eſcrol or Compartment.

Motto.

In *Funeral Solemnities* Coat-Armour is of very conſpicuous Uſe; for by the *Funeral Atchievement* we know the Degree or Quality of the Perſon deceaſed, as whether he was a *private Gentleman*, *Eſquire*, *Knight*, *Baronet*, *Nobleman*, *Prince*, *King*, or *Emperor*; and whether he was a *married Man*, *Batchelor*, or *Widower*; with the like of all Degrees of Women: And theſe Atchievements are generally fix'd on the Front of the Houſe of the Deceaſed, and are there call'd

Of Hatchments, or Funeral Atchievements.

HATCHMENTS, concerning which the following Things are obſervable. (1.) When a *Batchelor* dies, his Arms may be depicted *ſingle* or *quarter'd*, but never *impaled*; and on the Hatchment he may bear a Creſt, but not on the Hearſe or Horſes; and the Ground without the Eſcutcheon ſhall be all black. (2.) If a *Maid* dies, her Arms muſt be placed in a *Lozenge* or *Rhombus*, ſingle or quarter'd, with the Ground all black; and the Hatchment ſhall have a *Shell* over it inſtead of a *Creſt*; but on the Hearſe it ſhall be enſign'd with a Knot of Ribbands.

(3.) When

(3.) When a *married Man* dies, his Wife's Arms are impaled with his own, with the Ground black on his Side of the Hatchment, and white on his Wife's Side, which thus diſtinguiſhes the *Dead* from the *Living*. On the Hatchment he bears a *Creſt*, but not on the Hearſe or Horſes. (4.) When the *Wife* dies, the Arms are as before, with the Ground on her Side black, but on her Huſband's white: Inſtead of a *Creſt* her Hatchment ſhall have a *Shell* over it, which muſt alſo be omitted on the Hearſe. (5.) If a *Widower* dies, his Arms ſhall be impaled with thoſe of his Wife with a *Creſt*, &c. and the Ground all black. But (6.) If it be a *Widow* that is dead, her Arms with her Huſband's are impaled within a *Lozenge* Shield, with a *Shell* over it inſtead of a *Creſt*, and the Ground all black. (7.) When the Deceaſed is the laſt of a Family, then, inſtead of a *Creſt* or *Shell*, there ſhall be placed on the Hatchment a *Death's Head*, denoting that Death has *conquer'd all*. Note, By the *Helmet* and *Coronet*, &c. the *Degree* of the Deceaſed is known. Thoſe little Shields, which contain *Death's Heads* and other Funeral Devices placed on the Foreheads of Horſes that draw the Hearſes at pompous Funerals, are call'd *Chaperonnes*, *Shapournets*, or *Chaperoons*.

THUS much for a Deſcription of *Arms* and *Atchievements*; next follow the *Rules of Blazon*, which are carefully to be obſerv'd; *viz.* (1.) Firſt the *Tincture of the Field* muſt be named; as, he bears *Or*, *Argent*, *Azure*, *Gules*, &c. (2.) Then the *Lines* wherewith it is divided, and alſo their *Forms*; as *per Pale*, *Feſs*, *Bend*, &c. *invected*, *ingrailed*, *indented*, &c. (3.) Next the *Charge* muſt be named; of different Things, that which lieth next the Field, and neareſt the Center, firſt; and then thoſe which are more remote. (4.) When Colour and Metal are placed ſeveral times one upon another, the proper Names thereof muſt be mention'd but *once*; as, he bears *Or*, on a Saltire *Azure*, nine Lozenges of the *Firſt*, i. e. the firſt named Metal *Or*, which muſt not be again repeated: For, (5.) A Repetition of Words is accounted a great *Fault* in *Blazoning*; and all ſuperfluous Words muſt be carefully *avoided*, eſpecially any of theſe, *of*, *or*, *and*, *with*, and ſuch like, the Repitition of which is inſufferable to the Ear of

The Rules of Blazon.

an *Armoriſt*. (6.) A *Propriety of Language*, or *proper Forms of Blazon* muſt be heedfully obſerv'd; for *different Forms* make the Arms ceaſe to be the ſame. (7.) The more *compendious* the *Blazon* is, the *better*, provided it be not myſterious. (8.) Theſe Rules and Cautions relate to the Arms on the Shield only, and not to the *exterior Ornaments* of the Atchievements; for they are no *eſſential* Parts of Arms, and therefore in blazoning them, *Repetitions*, &c. are not deem'd Faults.

An Example of Blazon.

I SHALL add one Example of blazoning *Coat-Armour*, and that ſhall be of the Arms of his preſent Majeſty KING *GEORGE*, as being that which the Reader may moſt eaſily come at, to obſerve with the Blazon, and containing a great Variety in ſeveral Coats marſhall'd together.

ARMS.

QUARTERLY, in the firſt grand Quarter *Mars*, three Lions paſſant-guardant in Pale, *Sol*; the *Imperial Enſigns* of *England*, impaled with the *Royal Arms* of *Scotland*, which are *Sol*, a Lion rampant within a double Treſſure flower'd and counterflower'd with Fleurs-de-lis, *Mars*. The ſecond Quarter is the *Royal Arms* of *France*, viz. *Jupiter*, three Fleurs-de-lis, *Sol*. The third, the *Enſign* of *Ireland*, which is, *Jupiter*, an Harp, *Sol*, ſtringed *Luna*. And in the fourth is *His Majeſty's own Coat*, viz. *Mars*, two Lions paſſant-guardant *Sol*, for *Brunſwick*; impaled with *Lunenburgh*, which is, *Sol*, Semee of Hearts proper, a Lion rampant, *Jupiter*; having ancient *Saxony*, viz. *Mars*, an Horſe courrant, *Luna*, ente (or grafted) in Baſe; and in a Shield ſurtout, *Mars*, the Diadem or Crown of *Charlemagne*. The Whole within a *Garter*, as Sovereign of that moſt Noble Order of Knighthood.

CREST.

AN Helmet full-fac'd and grated, mantled with Cloth of Gold, doubled Ermine, and ſurmounted of an Imperial Crown, on the Top of which is a Lion paſſant-guardant, *Sol*, crown'd with a like Crown.

SUP-

SUPPORTERS.

ON the *Dexter* Side a Lion guardant, *Sol*, crown'd as the Creſt; on the *Sinister*, an Unicorn, *Luna*; horn'd, main'd, and hoof'd, *Sol*; gorged with a Collar of Croſſes Patee, and Fleurs-de-lis, a Chain thereto affix'd all Gold; both ſtanding on a Compartment, from whence iſſue at the Right End a *Roſe* party per Pale, Argent and Gules, ſtalk'd and leav'd, Vert, for *England*; and on the Left a *Thiſtle* proper for *Scotland*.

MOTTO.

DIEU ET MON DROIT; that is, *God and my Right*. In the Garter, *Honi ſoit qui mal y penſe*; *i. e.* Let him be aſhamed who thinks ill thereof.

THUS much for the *Art of Blazon*; and now a Word or two concerning the Profeſſors thereof, viz, *Heralds*, &c. ſhall conclude this Head.

Of the Colleg of Heralds.

THE *COLLEGE of HERALDS* is ſeated on *St. Bennet's Hill*, near *Doctors Commons*. They were made a College or Corporation by Charter of King *Richard* III. and afterwards had another Charter of Privileges granted to them by King *Edward* VI. in the third Year of his Reign, 1549.

OF this Collegiate Society are, (1.) The *Earl Marſhal* of *England*, who is their Head; of whom we have already ſpoken. (2.) Four *Kings of Arms*. (3.) Eight *Heralds*; and (4.) Four *Purſuivants* at Arms.

Of the Kings of Arms.

THE *KINGS of ARMS* are, (1.) *GARTER*, Principal King of Arms, inſtituted by *Henry* V. 1422. His Office is to attend the *Knights of the Garter* at their Solemnities, and to marſhal the Funeral Solemnities of the *Higher Nobility*; to carry *Garters* to Kings and Princes beyong the Seas, *&c.* (2.) *CLARENCIEUX*, ſo call'd from the Duke of *Clarence*, to whom it firſt belong'd. His Office is to marſhal and diſpoſe of the Funerals of all the *Lower Nobility* and *Gentry* on the *South Side* of the *Trent*, and is therefore ſometimes call'd *Surroy* or *South-Roy*, i. e. *South-King*. (3.) *NORROY*, or *North-Roy*, is

to do the like on all the *North Side* of the *Trent*. (4.) *BATH*, inſtituted by His Majeſty 1725, upon the Creation of the 38 *Knights of the Bath*, in the Perſon of *Grey Longueville*, Eſq; His Office is to attend thoſe Knights at their Creations, Inſtallations, *&c.* At the ſame time he was alſo made *Hanover Herald.*

Of the Heralds. THE *HERALDS* are diſtinguiſh'd by the Names of *Richmond*, *Lancaſter*, *Cheſter*, *Windſor*, *Somerſet*, *York*, *Hanover*, and *Brunſwick*; beſides one extraordinary, call'd *Mowbray*. They are all of equal Degree. Their Office is to wait at Court, attend public Solemnities, proclaim War and Peace, *&c.*

Of the Purſuivants. *PURSUIVANTS*, or *Marſhals*, are four, viz. *Rouge-Croſs*, *Rouge-Dragon*, *Portcullis*, and *Blue-Mantle*. Beſides theſe there are two extraordinary, call'd *Blanch-Lion* and *Rouge-Roſe*. They had their Names, 'tis thought, from ſuch Badges heretofore worn by them. The Service of theſe, the Heralds, and of the whole College, is uſed in marſhalling and ordering *Coronations*, *Inſtallations*, *Marriages*, *Chriſtenings*, *Funerals*, *Feſtivals* of Kings, *Cavalcades*, *Shows*, &c. and alſo to take care of the *Coats of Arms* and of the *Genealogies* of the Nobility and Gentry.

Note, That as *Garter* is principal King of Arms in *England*, ſo *Lion* is in *Scotland*, and *Ulſter* in *Ireland*.

PHILO-

PHILOLOGICO-MATHEMATICAL MISCELLANIES.

THE Bulk of this Work conſiſting purely of *Philological* Literature, it could not well be expected that Subjects of any other Sort, eſpecially *Mathematical* ones, ſhould make any Part thereof: But ſince at this Time no Parts of Learning are found more uſeful, or cultivated more univerſally, or afford greater Pleaſure in the Study thereof, than the *Mathematical Arts and Diſciplines*, I thought it would be no unacceptable Service, even to the *mere Philological* Reader, to give ſome general Account of them in a *deſcriptive Manner* only; and that may, in ſome meaſure, be eſteemed of a *Philological Nature*, and therefore comportant enough with my Deſign.

Mathematical Literature, why here deſcribed.

MATHESIS, though it originally ſignifies *Learning* in general, yet with us, in our own Tongue, it is appropriated to *Mathematical* Literature, and comprehends in its Signification all the *Arts* and *Sciences* which are converſant about *Number*, *Magnitude*, *Meaſure*, and *Motion*, &c. They are therefore call'd *Mathematical*, and thoſe who underſtand or profeſs them are call'd *Mathematicians*.

Matheſis, what.

MATHEMATICS, or the Mathematical Sciences, have by many been divided into (1.) *Pure Mathematics*, containing *Arithmetic* and *Geometry*, which treat only of *Number* and *Magnitude*, and their various *Habitudes* and *Relations* abſtractedly conſidered from all kind of Matter. (2.) *Mixed Mathematics*, which are thoſe Branches of the Science which treat of the Properties of Quantity, either of Number or Magnitude, applied to Matter; as *Aſtronomy*, *Geography*, &c. (3.) *Speculative Mathematics*, which contemplates the

The Diviſion of Mathematical Arts and Sciences.

Properties, *Proportions*, *Relations*, &c. of Bodies, which make the *Theory*. And, (4.) *Practical Mathematics*, which is the Application of the *Theory* to the *practical Uſes* of Life in all the ſeveral Sciences.

Another Diviſion thereof.

BUT this is far from being a *ſimple*, *juſt*, and *logical* Diviſion of the Body of *Mathematical Science*; I ſhall therefore, with regard to the particular and different Nature of the Parts, make another four-fold Diviſion thereof under the general Heads following: (1.) *Arithmetic*. (2.) *Geometry*. (3.) *Mixed Mathematics*. And, (4.) *Mechanics*. Of all which, and their various Sub-diviſions, a little.

ARITHMETIC.

Of Arithmetic.

ARITHMETIC is the Doctrine of Computation in general, or the Art of eſtimating Quantities of Number or Magnitude, and expreſſing them in Characters of a known and determinate Value or Signification: The fundamental Rules of doing which are (after learning the Value of the Characters, which

Its Rules.

is call'd *Numeration*) *five*, viz. (1.) *Addition*, by which various and different Numbers of Things are collected into one *Sum*, which is call'd the *Total* or *Amount* of all. (2.) *Subſtraction*, by which one Number or Quantity is taken from another in order to know the *Remainder*, *Difference*, or *Exceſs* of the Greater above the Leſſer. (3.) *Multiplication*, by which one Number, call'd the *Multiplicand*, is *increaſed* or *multiplied* by another, call'd the *Multiplier*, ſo many times as is expreſſed thereby; the Reſult of which is call'd the *Product*. (4.) *Diviſion*, by which one Number, call'd the *Diviſor*, may be *ſubſtracted* from another, call'd the *Dividend*, ſo many times as it is contained therein, which is expreſs'd by a third Number call'd the *Quotient*. (5.) *Evolution*, or the *Extraction* of *Roots* out of any *Power*, as the *Square*, the *Cube*, the *Biquadrate*, the *Surſolid*, &c. which are produced by multiplying any Number, call'd the *Root*, into itſelf 1, 2, 3, 4, 5, *&c.* times reſpectively.

The ſeveral Kinds thereof.

THE *Art of Computation* conſiſts of the following Branches, *viz.* (1.) *Numerical Arithmetic*, or that which performs by *Numbers*. (2.) *Logarithmetical Arithmetic*, or that which computes by *Logarithms* or the *Ratio's* of Numbers. (3.) *Specious Arithmetic*, or *Algebra*,

Algebra, which uſeth *Symbols* or *Characters* inſtead of Numbers. And (4.) *Fluxionary*, which proceeds with the momentary *Increments* and *Decrements* of Quantity conſidered in a *flowing State*.

Numerical Computation makes uſe of nine Characters, call'd *Figures* or *Digits*, to expreſs *Numbers* by, *viz.* 1, 2, 3, 4, 5, 6, 7, 8, 9, and the *Cypher* 0; and it is of two Kinds, *viz.* (1.) *Vulgar* or *Common Arithmetic*, which expreſſeth the Value of *Money*, *Weights*, *Meaſures*, and *Fractional* Parts in *divers Denominations*, according to the Uſage of the Country. *Numerical or Vulgar*, *and Decimal Arithmetic.* (2.) *Decimal Arithmetic*; this expreſſeth the Value of divers inferior Diviſions or Parts of *Money*, *Weight*, *Meaſure*, *Time*, in *tenth*, *hundredth*, *thouſandth*, &c. Parts of the *whole Number* or *Integer*; that is, the *Integer* is ſuppoſed to be divided into 10, 100, 1000, 10000, &c. *equal Parts*; then the inferior Denominations or Parts of this *Integer* are expreſs'd in thoſe equal Parts, which, becauſe their Value decreaſeth in a tenfold Proportion in each Place to the Right-hand of the *Integer*, are call'd *Decimal Parts* or *Numbers*: For Inſtance, in *Vulgar Arithmetic* 12 *l.* 15 *s.* 8½ *d.* will be thus expreſſed in *Decimals*, 12,7854, which are to be work'd in all Reſpects like Whole Numbers; which therefore renders *Decimal Arithmetic* compendious, eaſy, and every way preferable to the *Vulgar*.

LOGARITHMS are Numbers in *Arithmetical Progreſſion*, which, ſet with others in a *Geometrical Progreſſion*, do expreſs their *Ratio's* or *Proportions* to one another, as in the two following Series, *viz.* *Of Logarithms*

Thus { *Logarithms*, 0. 1. 2. 3. 4. 5. 6. *Arith. Prog.*
{ *Numbers*, 1. 2. 4. 8. 16. 32. 64. *Geom. Prog.*

Now the *Ratio* or *Number* by which the Members of the *Geometrical Progreſſion* are produced by a conſtant Multiplication therewith, is 2; thus 8 is produced by 3 Multiplications, 16 by 4, 32 by 5, &c. And therefore the *Ratio* of 8 to 1 (the firſt Term) is 3, of 16 to 1 is 4, of 32 to 1 is 5, &c. All which *Ratio's* are expreſſed by the Numbers 3, 4, 5 in the Series above; for which Reaſon they are call'd their *Logarithms*. Now the peculiar and moſt uſeful Property of *Logarithms* is this, That for every *Addition* and *Subſtraction* of them, there correſponds a *Multiplication* and *Diviſion* of the Number to which they belong; thus

by adding 2 and 4 you have 6, which is the *Logarithm* of 64, the Product of 4 times 16; and the contrary for *Diviſion*. Alſo by dividing a *Logarithm* you extract the Root of its Number; ſo 6 divided by 2 quotes 3 the *Logarithm* of 8, which is the *Square Root* of 64; divide 6 by 3 it quotes 2, the *Logarithm* of 4, the *Cube Root* of 64; and ſo of others. Having therefore a *Table* or *Canon* of *Logarithms* for all large Numbers, the tedious Labour of *Multiplication*, *Diviſion*, and *Extraction* of *Roots* is ſaved by an eaſy *Addition*, *Subſtraction*, and *Diviſion* of their *Logarithms*; which is the great Excellency of this Kind of *Arithmetic*, and which no *Artiſt* ought to be unacquainted with.

Of Algebra. *ALGEBRA* is call'd *Specious Arithmetic*, becauſe it is a peculiar Art or Method of managing a *Calculus* or *Computation* by *Species* or *Symbols* (which are generally *Letters*) inſtead of *Figures*, or the *Digits* uſed in *Common Arithmetic*. The *peculiar Artifice* of this Invention is to aſſume Quantities *really unknown* as *really known*, and then to proceed with them according to the Rules till they are brought to an *Equation* or *Equality* with others given or known at firſt. 'Tis uſual to repreſent *known Quantities* by the firſt Letters of the Alphabet, as *a*, *b*, *c*, *d*, &c. and the *unknown ones* by the laſt, as *x*, *y*, *z*, or by *Vowels*, as *i*, *o*, *u*. Moreover, to avoid all unneceſſary Uſe or Repetition of Words, *Algebraiſts* have a Set of *Characters* which ſignify how the ſeveral Quantities are affected in the Operation; the chief whereof are the following.

Algebraic Signs, with their Explanations.

$+$	More; as $a+b$, is a more b.
$-$	Leſs; as $a-b$, is a leſs b.
$\times$	Multiplied; as $a \times b$, is a multiplied by b.
$\div$	Divided; as $a \div b$, is a divided by b.
$=$	Equal to; as $a=b$, is a equal to b.
:	Is to; as thus, $a : b :: c : d$; that is, as a is to b,
::	So is; ſo is c to d.
@	Involved; as *Squared*, *Cubed*, &c.
ω	Evolved; or the *Root* extracted.
$\surd$	The *Root*; as $\surd^{2} a\,b$, is the *Square Root* of $a\,b$.

FLUXIONS

FLUXIONS are the different Velocities or moving Forces wherewith any Quantities, considered as *Fluents*, or in a flowing State, increase or decrease every Moment according to the *Ratio* or Proportion of those Velocities. Quantities and their *Fluxions* are here (as in *Algebra*) represented by *Species* or *Letters*; those call'd *Constant Quantities*, by the first Letters *a*, *b*, *c*, *d*, &c. and the *Fluents*, or flowing ones, by the last, as *v*, *x*, *y*, *z*; and their *Fluxions* by the same with a Point over them thus, $\dot{v}$, $\dot{x}$, $\dot{y}$, $\dot{z}$. But since the *Ratio's* of *Velocities* do themselves, in many Cases, keep perpetually altering (as in the Motion of a *Falling Body*, &c.) it will happen that these *Fluxions* themselves must vary every Moment, and so produce *Fluxions* of *Fluxions*, or *Second Fluxions*, thus mark'd, $\ddot{v}$, $\ddot{x}$, $\ddot{y}$, $\ddot{z}$; and the *Fluxions* of these are *Third Fluxions*, as $\dddot{v}$, $\dddot{x}$, $\dddot{y}$, $\dddot{z}$; and so on *ad infinitum*. Now the *Calculus* of *Fluxions* consists of two Methods, *viz.* The *Direct Method*, which finds the *Fluxions* of *Fluent Quantities* proposed; and the *Inverse Method*, whereby from the *Fluxions given* we investigate the *Flowing Quantities*. This Art is of modern Date, is the very *Apex* of human Learning, and the *Invention* of the immortal Sir *Isaac Newton*. *Of Fluxions.*

GEOMETRY.

GEOMETRY is that Part of *Mathesis* which contemplates the *Nature*, *Properties*, and various *Affections* of *Quantities* or *Magnitude* in general. *Quantity* is of various Sorts; (*Note*, A *Point* is that which is supposed to have no Dimensions.) (1.) A *Line*, which is generated by the Motion of a *Point*; and therefore is of one Dimension only, *viz. Length*. (2.) A *Superficies*, which is generated by the Motion of a *Line*, and so hath two Dimensions, *viz. Length* and *Breadth*. (3.) A *Solid*, which is produced by the Motion of a *Superficies*, and hath three Dimensions, *viz. Length*, *Breadth*, and *Depth*. *Of Geometry.* *A Line.* *Superficies.* *A Solid.*

EVERY Quantity is measured by a Quantity of the *same Kind*; as (1.) A *Line* is the Measure of a *Line*; and this is *Simple Measure*. (2.) A *Superficies* is measured *Quantities how measur'd.*

ſured by a *Superficies* of leſs Quantity, and this is call'd *Square Meaſure*. (3.) A *Solid* meaſureth a *Solid*, and this is call'd *Cubic Meaſure*.

Similar. *QUANTITIES* are ſaid to be *Similar*, which are generated in the ſame Manner; thus all *Right Lines* and *Circles*, *Squares* and *Spheres* are *ſimilar* to

Equal. each other. They are alſo ſaid to be *equal*, when they can be meaſured *exactly* by one *common Meaſure*.

Commenſurable. Laſtly, they are ſaid to be *commenſurable*, when they can be *exactly* meaſured by any *finite common Meaſure*: But ſuch as have no ſuch common Meaſure are ſaid to be *incommenſurable* to each other.

Geometry of three Kinds. As *Lines* are thoſe *Simple Quantities* of which all others do conſiſt, ſo according to the ſeveral Forms or Kinds of theſe, there muſt enſue a Variety of *Geometric Science*. Thus (1.) *Right Lines* produce *plain Superficies*, and *Solids* terminated by ſuch; all which make the Subject of *Plain Geometry*. (2.) *Circular Lines*, which generate *Spherical* or *Globular Bodies*; the Science of which makes *Spherical Geometry*. (3.) The *Curves*, and *Superficies* terminated by them, which are produced from various *Sections* of a *Cone*, make the Subject of the *Conical Geometry*. Of which in order.

Plain Geometry. *PLAIN GEOMETRY*, then, is that which contemplates and teaches the Nature and Properties of all Quantities or Bodies which are generated by a *Rectilinear Motion*; and gives Rules whereby to inveſtigate and compute the *Areas* of all ſuch *Superficies*, and the *Solidity* of all ſuch *Solids*. Among the *Superficies* of *Plain Geometry* the chief are, the *Square*, the *Parallelogram*, the *Triangle*, the *Circle*, the *Rhombus*, *Rhomboides*, and all ſorts of *Trapezia* and *Polygons*. Among the Solids are reckon'd the *Cube*, the *Parallelopipedon*, the *Cone*, the *Globe* or *Sphere*, the *Pyramid*, *Priſm*, *Cylinder*, and all Kinds of *Fruſta* and *Polihedrons*. The Doctrine of theſe Figures and Bodies makes the Subject of *Euclid's Elements* of *Geometry*.

Spherical Geometry. *SPHERICAL GEOMETRY*, or the *Doctrine* of the *Sphere*, is converſant about the Nature, Properties, and Affections of the *Circles* of the *Sphere*, both *great* and *ſmall*. This conſiſts of three great

Doctrine of the Sphere. Parts, *viz.* (1.) The Doctrine of the Circles of the *Sphere* conſidered ſingly, or as *interſecting* each other, and forming *Spherical Triangles*, which make the Subject

ject of *Spherical Trigonometry*. (2.) *Orthography*, which is the *Projection* of the *Sphere in Plano*, by *parallel Lines*; or a Delineation of all its Circles as they are to an Eye at an infinite Diſtance; which in this Caſe are all *Ellipſes*. (3.) *Stereography*, a Projection of the *Sphere*, or its *Circles*, as they would appear on the *Plane* of the *Projection* to an Eye placed on the Surface of the *Sphere*; and in this Caſe the Projection will all conſiſt of *Right Lines* and *Circles*. *Orthography.* *Stereography.*

CONICAL GEOMETRY, commonly call'd *Conic Sections*, or *Conics*, is the Doctrine of three ſpecial *Curves* made by the Section of a *Cone* in three different Manners. As (1.) The *Ellipſis*, which is produc'd by a Plane cutting off the *Cone*, thro' both Sides, but not parallel to the *Baſe*. This Figure is vulgarly call'd an *Oval*, or *Oblong Circle*; having two Diameters, the longeſt call'd the *Tranſverſe*, and the ſhorter the *Conjugate* Diameter. (2.) The *Parabola*, which is a Curve made by cutting the Cone by a Plane parallel to one of its Sides. And (3.) The *Hyperbola*, which is produced by a Plane cutting the Cone in any Manner not parallel to the *Side* or *Baſe*. The Properties peculiar to each of theſe Curves are many, and make the moſt important Part of the *higher Geometry*. *Conical Geometry.* *An Ellipſis.* *Parabola.* *Hyperbola.*

MIXED *MATHEMATICS*.

THIS conſiſts of thoſe *Mathematical Diſciplines* which require the united Aſſiſtance of *Arithmetic* and *Geometry*, being the Application of the *Theories* or *Rules* of each to the various *Uſes* and *Purpoſes of Life*: And are as follow. *Of mixed Mathematics.*

MENSURATION is the Art of Computing the Quantity of the Dimenſions of Bodies of all Kinds, in the known Meaſures in common Uſe, as *Inches*, *Feet*, *Yards*, &c. Thus we find how many *Rods*, *Yards*, *Feet* and *Inches* the *Length* of any Line or Diſtance is; then we compute how many *Square Rods*, *Yards*, &c. is contain'd in the *Area* of any Superficies, which is call'd the *Superficial Content* thereof. And, laſtly, we calculate the Number of *Cubic Feet*, *Inches*, &c. contain'd in the Bulk of any Solid, which is call'd the *Solidity* or *Solid Content* thereof. *Menſuration.*

GAUGING

Gauging. *GAUGING* is an Art whereby we find the *Content* of the *Capacity* of any *Veſſel* in *Ale*, *Beer*, or *Wine* Gallons, or of *Corn* in Corn Buſhels. In order to do this, the *Solid Content* is found in *Cubic Inches* by *plain Menſuration*; and then reduced to *Gallons*, by dividing by 282, the *Cubic Inches* in an *Ale Gallon*; or 231, for a *Wine Gallon*; or 268 $\frac{8}{100}$, for a *Corn Gallon*; or 2150,42 for *Corn Buſhels*; and this is done by various *Methods* and *Inſtruments*.

Geodæſia. *GEODÆSIA*, or *Surveying*, is the Art of meaſuring Land; by firſt meaſuring the Sides of a Field by *Gunter's Chain* of four Rods, or 100 Links; and then taking the Angles with a *Plain Table*, *Theodolite*, &c. Afterwards the Field is plotted, or laid on Paper, from a *Scale* of equal Parts; and then its *Area* is reduced to *Triangles*, *Trapezia*, &c. and the *Superficial Content* of each is found in *Acres*, *Roods*, and *Rods*, by allowing 160 Square Rods or Poles to an *Acre*, Statute Meaſure.

Trigonometry. *TRIGONOMETRY*; this is the moſt uſeful Art which teaches the Doctrine of the *Menſuration* of *Triangles*, and is twofold; *viz.* (1.) *Plain*, which is converſant about *Plain* or *Rectilineal Triangles*: the Sides or Legs of theſe are conſider'd as the *Radius*, *Sines*, *Tangents*, or *Secants* of the *Angles*, and are meaſured in any Kind of *equal Parts*; the *Angles* themſelves are computed in *Degrees*, *Minutes*, and *Seconds*, the Meaſures proper to a Circle, of which they are ſeverally Parts. In any *Plain Triangle*, two Sides only, or one Side and one Angle being known, is ſufficient to diſcover the other Sides and Angles.

Spherical. (2.) *Spherical*; this treats of *Spherical Triangles*, the Sides of which are Parts of Circles, and ſo both them and their Angles are found in *Degrees*, *Minutes*, &c. by means of the *Radius*, *Sine*, and *Tangent*, as before.

Altimetry and Longimetry. *ALTIMETRY* is the Art of Meaſuring the *Heights* of Objects above the Earth by means of a *Quadrant*, and that either at *one* or *two Stations*; at one *Station* you form a Right-angled Triangle, in which the Baſe or Diſtance of the Object is meaſured and known, and the Angle at the Baſe is meaſured likewiſe by the *Quadrant*, and therefore the *Cathetus* or *Perpendicular* (which is the *Height* of the Object) is eaſily found. If you cannot approach the Object,

you

you take the Angle of its Height at two Stations, and measuring the Diſtance between them, you have an *oblique Triangle*, wherein are two Angles and a Side known, and from thence the other Parts, and conſequently the Height of the Object is eaſily determin'd. The meaſuring of the *Diſtance* of Objects after the ſame Manner is call'd *Longimetry*.

NAVIGATION is the Art of *Sailing*, or conducting a Ship under Sail from one Place to another, or to any appointed Port; this may be done ſeveral ways. As, (1.) By the *Plain Chart*, wherein the *Meridians* are all laid down as parallel Lines, which they are not, and therefore it is very erroneous, and only uſeful in *Coaſt-Sailing*. (2.) By *Mercator's Chart*; this is a great Improvement of the *Plain Chart*; for tho' the *Meridians* are here *parallel Lines*, yet the *Degrees* of *Latitude* being *increaſed* in Proportion as the *Degrees* of *Longitude decreaſe*, the *true Eaſting* or *Weſting* of a Ship is hereby preſerved, which was deſtroyed in the other. (3.) By *middle Latitude*, which is half the Sum of the *Latitudes* departed from and arrived to; for this is the Analogy: As the Co-ſine of middle Latitude is to the Tangent of the Courſe, ſo is the Difference of *Latitude* to the Difference of *Longitude*; and this way comes very near *the Truth*. (4.) *Oblique Sailing* is that wherein the Parts to be calculated conſtitute an *Oblique Triangle*, which happens in many Caſes. (5.) *Great Circle Sailing*; this is when the *Mariner* directs the Courſe of the Ship upon the Arch of a great Circle of the Globe; the *Reckoning*, therefore, here is made according to the Rules of *Spherical Trigonometry*. In all other Methods but this the Ship is driven by the Wind on a *Rhumb*, or *Line*, which makes equal Angles with every Meridian. (6.) *Globular Sailing*, or by the *Globular Chart*; the Property of which is, that the *Parallels* and *Meridians* are deſcribed thereon in the ſame Manner as they are on the Globe itſelf; and conſequently this Method is not only very curious, but the moſt natural of all others; and is alſo very exact. *Navigation.*

FORTIFICATION is the Art of applying the Doctrine of *Plain Trigonometry* to the Calculation of the *Lines*, *Sides*, and *Angles* of a *Fort* of any Figure, regular or irregular, in order to ſecure and defend the Place *Fortification.*

Place ſo fortified againſt the Attacks of the Enemy in the beſt manner poſſible.

Gunnery. *GUNNERY*, in part, conſiſts of the Application of the *Doctrine of Projectiles*, or caſting *Bombs*, that ſo any diſtant Object, as a Caſtle, *&c.* may be thereby ſtruck with Certainty, to the Intent it may be demoliſh'd. For from the Nature of the *Parabola*, and the Doctrine of *Plain Triangles*, certain Rules are deduced whereby the Degrees of *Elevation* of the *Cannon*, the *Impetus* or Force by which the *Ball* or *Bomb* is projected, the *Amplitude* or horizontal Range, the Height of the *Random*, the Time of the Continuance in the Air, *&c.* are determined for that Purpoſe.

Muſic. *MUSIC* is the Art of making *Harmony* with the various *Tunes* or *Notes* of Sound combined in a proper Manner. All Sounds are raiſed by the Percuſſion of ſome Body, which vibrating in the Air cauſes various *Notes* or *Tunes* of the Sound, which are more *Acute* or *Grave*, as thoſe Vibrations are quicker or ſlower, and they are reciprocally as the Lengths of *Strings*; and hence the Relation or Proportion of Muſical Notes is determined; thus if a *Chord* be ſtrain'd, and fretted or ſtopp'd

At the Diviſions here ſpecified, *viz.*		The Note founded will be
$\frac{1}{2}$		An *Octave* or Eighth.
$\frac{2}{3}$		A Fifth.
$\frac{3}{4}$		A Fourth.
$\frac{4}{5}$		A greater Third.
$\frac{5}{6}$		A leſſer Third.
$\frac{3}{5}$		A greater Sixth.
$\frac{5}{8}$		A leſſer Sixth.

If any of theſe Notes are ſounded with the whole String, the Conſonance is agreeable and pleaſing to the Ear; and they are therefore call'd *Concords*, but all others are *Diſcords*. And a proper Combination of theſe *Notes*, both *Concords* and *Diſcords*, makes *Harmony* or *Melody*.

Aſtronomy. *ASTRONOMY* is that Science which, from the *Conic Sections*, and *Trigonometry plain* and *ſpherical*, ſupplies us with Rules for inveſtigating the Diameters and Diſtances of the Planets; the Figure of their Orbs; the Laws of their Motions; their various Phaſes; the Time of their Annual, Menſtrual, or Diurnal

Diurnal Revolutions; the *Eclipſes* of the Sun and Moon, and the *Occultation* of the Planets and Stars; their Places, Latitude, and Longitude in the Ecliptic; their Declination, Right and Oblique Aſcenſion, and Deſcenſion, and Aſcenſional Difference; *Amplitude*, *Azimuth*, and various other Affections of the Planets and Stars.

SCIAGRAPHY or *Dialling* is the Art of making *Dials* of all Sorts, on all Kinds of *Planes*; as *Horizontal*, *Erect*, or *Reclining*; *Direct* or *Declining*. The *Hour-Lines*, the *Stile's Height* above the *Plane*, the *Subſtile's Diſtance* from the *Meridian*, and *Plane's Difference of Longitude*, are all calculated by the Rules of *Spherical Trigonometry*; and from thence are deduced various *Mechanical* Methods of making *Dials* for ſuch as underſtand not the *Theory*. *Sciagraphy or Dialling.*

OPTICS is a Science which treats of the Properties of direct *Viſion*, and is of two Kinds; *viz.* (1.) *Catoptrics*, which treats of Viſion by *Reflection* of the Rays of Light from the *Plane*, *Convex*, or *Concave Superficies* of *Mirrours* or *Looking-Glaſſes*. (2.) *Dioptrics*, which treats of *Viſion by Refraction*, or the Appearance of Objects thro' different *Mediums*, as *Air*, *Water*, *Glaſs*; and eſpecially thro' Lenſes of Glaſs, which are either *Convex* or *Concave* on one or both Sides generally; and receive Rays of Light, which are either *Parallel*, *Converging*, or *Diverging*; and accordingly enlarge or diminiſh the Images of Objects in the *focal Point* of the *Lenſes*; which are uſed ſometimes *ſingly*, and ſometimes *combined*; as in Compound or Double *Microſcopes* and *Teleſcopes*. *Optics.* *Catoptrics.* *Dioptrics.*

PERSPECTIVE is that Part of the *Mathematics* which gives Rules for delineating Objects on a plain Superficies after the ſame Manner as they would appear to our Sight, if ſeen thro' that Plane, it being ſuppoſed a tranſparent one. In the Repreſentation of *Solid Bodies*, *Buildings*, &c. there are three Parts obſervable. (1.) *Ichnography*, which ſhews the *Plan*, *Plat-form*, or *Ground-Work* of the Building. (2.) *Orthography*, which exhibits the *Front upright*, or Parts in *direct View*. (3.) *Scenography*, which is the perſpective View of the whole Building, Fronts, Sides, the Height and all. *Perſpective.*

ARCHITECTURE is to be reckon'd among the Arts *Mathematical*, foraſmuch as *Geometry* is neceſſary *Architecture*

neceſſary for forming the ſeveral Parts and Members in a Piece of Building, and conſtructing the whole with *Beauty* and *Harmony*. *Arithmetic* alſo furniſhes the Means of calculating the Proportions and Dimenſions of every Part. Thus, having divided the Diameter of a *Column* or *Pillar* into ſixty equal Parts (call'd a *Module*) the ſeveral Members of the *Pedeſtal* and *Baſe* of the Pillar, and of the *Capital*, the *Architrave*, *Freeze*, and *Cornice* of the *Entablature* above, are all determined in thoſe equal Parts of the *Module*, according to the various Proportions uſed in the *Tuſcan*, *Doric*, *Ionic*, *Corinthian*, and *Compoſite* Orders.

MECHANICS.

Of Mechanics. *MECHANICS* is the Geometrical Science of *Motion* and *moving Forces*, or *Powers*; declaring their *Effects*, as applied to *Engines*, and demonſtrating the *Laws* by which all *Motion* is perform'd by Simple or Compound Machines.

The Center of Magnitude, Motion, and Gravity. In Bodies, as the Subject of Motion, we conſider three Sorts of *Centers*, *viz.* (1.) The *Center* of *Magnitude*, which is that Point in Bodies, *equally diſtant* (as much as poſſible) from their *Extremities*. (2.) The *Center* of *Motion*, which is that Point in Bodies about which they may move or reſt. (3.) The *Center* of *Gravity* is that Point in a Body on which it will reſt, or on all Sides of which the Parts of that Body *equiponderate* each other, in any Situation whatſoever.

Of the Power and Momentum of Motion. That by which a Body may be ſuſtain'd or mov'd, is call'd a *Power*, or *moving Force*. The *Quantity* of a *Power* is determin'd by the *Quantity* of *Gravity* of the Body on which it acts, ſuſtaining it in *Equilibrio*, or raiſing it. The *Quantity* of Motion of a Body is the Sum of the Motion of all its Parts. The *Momentum* or *Force* of a Body is compounded of the ſingle *Forces* of *Gravity*, and the *Celerity* or *Swiftneſs* of its Motion.

Of the Mechanical Powers. The Lever. The *Mechanical Powers* or *Machines* are either *Simple* or *Compound*. *Simple Machines* are the following, *viz.* (1.) The *Lever*, which is a ſtrait Piece or Bar of Wood or Iron, moveable on a fix'd Point or Center, call'd the *Fulcrum* or *Prop*; at one End of the *Lever* the *Power* is affixed, and the *Weight* to the other

other moſt generally. (2.) The *Balance* is a *Lever* ſuſpended in the middle Point; at the Ends of which hang a Pair of Scales, for eſtimating the Weight of Bodies by ſome known and ſtandard *Weight*. (3.) The *Axis in Peritrochio*, or Wheel and Axis, which is a Machine invented for the eaſy lifting or raiſing a Weight to a greater Height than can be done by the *Lever*; as in the *Crane*, &c. (4.) The *Pulley*, which is a Machine conſiſting of a Wheel, moveable about an Axis fix'd in a Block; when ſeveral are combin'd in one Block, they are call'd a *Tackle* of *Pulleys*; and are uſed where the *Wheel* and *Axis* can't be conveniently applied. (5.) The *Wedge* is an Inſtrument much better known in its Effect than in its Power. (6.) The *Screw*, whoſe *Power* and *Uſe* is well known, eſpecially in Point of *Preſſure*. (7.) The *Inclined Plane*; by this Machine Bodies are raiſed with *leſs Power* in an *oblique*, than they could be in a *perpendicular* Direction.

The Balance.

Axis in Peritrochio.

The Pulley.

The Wedge.

The Screw.

The Inclined Plane.

THE *General Principle*, or *Canon*, by which the Force or Power of each of thoſe Machines is eſtimated, is this, *As the Diſtance of the Weight is to the Diſtance of the Power from the Center of Motion, ſo is the Power to the Weight it will equiponderate.* Otherwiſe thus; *The Spaces paſſed thro' by the Power and Weight are reciprocally proportional to their Forces.*

The general Principle of all Mechanic Agency.

Compound Machines are ſuch as conſiſt of two or more of the *ſimple ones* combined together, and whoſe Forces are united to produce an Effect; as *Clocks*, *Watches*, *Orreries*, moſt Sorts of *Water-Engines*, with an infinite Variety of others.

Compound Machines.

ADVERTISEMENT.

THE Account given of the *Quakers*, and their Tenets, in *Pag.* 35. of this Book, being not ſatisfactory to the People of that Denomination, they have deſired me to inſert here another, which themſelves have dictated, and they think better expreſſes their Character and Principles than the former. I readily comply with their Requeſt, as in itſelf very reaſonable, and which will clear me of the Charge of *Miſrepreſentation*, which, when real and deſigned, is the fouleſt Imputation any Writer can be affected with, and which I am very conſcious I have not any where juſtly deſerv'd.

" *QUAKERS*, ſo call'd at firſt from ſome of " them *quaking* or *trembling* in their religious Meet- " ings. They diſown not the Name *Quaker*, when " uſed by others as a Mark of Diſtinction *only*, and " not in Deriſion. Their Tenets, or religious Prin- " ciples, are largely ſet forth and vindicated in an " *Apology* firſt publiſhed in 1675 by *Robert Barclay*, " which has been often ſince printed without any " Alteration; to which I ſhall refer the Reader for " their noted Doctrines of the *Light within*, and " their Diſuſe of all external Ceremonies and Services " in the Worſhip of God but Preaching and Pray- " ing; and even the two Sacraments, BAPTISM " and the EUCHARIST. Their other Modes are " too well known to need Deſcription. They firſt " appear'd about the Year 1650."

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